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ABSTRACT

This report has been prepared in response to the need for basic data on the nature of schools, colleges, and departments of education (SCDEs) and on the roles they play or might be expected to play in knowledge production and utilization (KPU) in education. Investigative activity involved examining the KPU activity of 135 SCDEs, and the resulting data is analyzed under the following descriptive headings: (1) institutional self-report (demographic data, institutional KPU mission, KPU-supportive organizational policies and practices, KPU activities and products, KPU futures in respect to demography, organization, and faculty); (2) faculty self-report (demographic data, perception of and involvement in institutional KPU mission, perceptions of the future; (3) productivity studies (general description of the studies, relative performance of SCDE types, classification of SCDEs by KPU productivity, sources of highest degrees, SCDEs contrasted to other KPU producers); (4) contemporary scenarios of KPU in SCDEs by category; (5) contextual factors affecting individual and institutional behavior in SCDEs (individual and unit relationship with the institution and superstructure, governance, mission, budgets, reward systems); (6) likely near future scenarios (budget, KPU support, training and instructional activities support, program quality, governance, role perception, issues for planners); (7) alternative futures for SCDEs (framework, application of framework to SCDE institutional types, summary and recommendations for sustaining and expanding KPU centers and expanding knowledge utilization involvement). (MB)

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FINAL REPORT

A STUDY OF TEACHER EDUCATION INSTITUTIONS AS INNOVATORS, KNOWLEDGE PRODUCERS, AND CHANGE AGENCIES

National Institute of Education Project No. 4-0752

David L. Clark and Egon G. Guba

Indiana University
Bloomington, Indiana

April 30, 1977

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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FOREWORD AND ACKNOWLEDGEMENTS

No study of this magnitude could be executed without the direct and indirect assistance of many persons and agencies.

We are first of all indebted to the National Institute of Education which provided funds initially for the basic two-year project, and followed with a supplementary grant in September, 1975 to support an extension of the productivity studies reported in Chapter V. In addition, the excellent staff work of Ward Mason, John Egermeier, and particularly Rolf Lehming, who worked in a liaison capacity with the project, and gave us many valuable insights into our task.

The regular project staff consisted of graduate assistants from the Department of Higher Education in the School of Education at Indiana University: Mary Carroll, Carolyn Cates, Ralph Cyr, Elizabeth Kyzr-Sheeley, and Yvonna Sessions-Lincoln gave unstintingly of their time and participated in the project activities as colleagues at all levels of professional assignment including site visits, data analysis, and instrument development. The contribution of Prof. Mary Corcoran, who worked with us while on sabbatical leave from the Department of Higher Education at the University of Minnesota during the 1975-76 academic year can hardly be measured. Prof. Corcoran not only provided a ready source of wise advice and criticism but joined with us as a participating staff member in the planning, conduct, and synthesis of our site visits to schools, colleges, and departments of education (SCDEs).

We were well served by a distinguished Board of Visitors which met with us on three occasions and provided us with invaluable counsel. The Board consisted of Robert Benton, Superintendent of Public Instruction, State of Iowa; Joan Dee, Assistant Dean, School of Education, Boston University; Richard Gousha, Dean, School of Education, Indiana University; Bruce Joyce, Stanford University and Lewin Associates; David Krathwohl, then Dean, now Professor, School of Education, Syracuse University; Sam Sieber, Educational Consultant; B. Othanel Smith, Professor Emeritus, University of South Florida, and Joost Yff, Director, Information Services, American Association of Colleges for Teacher Education. Bruce Joyce and Joost Yff served ex officio on the Board to provide liaison with two other concurrent research efforts in teacher education being conducted by Lewin Associates, Washington, D. C. and the American Association of Colleges for Teacher Education. We also profited from the counsel of John B. Davis, then Superintendent of Schools in Minneapolis, Minnesota, who served for one year on the Board until leaving the superintendency to become President of Macalester College, and of Malcolm Provus, Director, Evaluation Research Center, University of Virginia, who served until his untimely death in January, 1975.

A major portion of the data detailed in this report is drawn from institutional questionnaires which were completed in 135 schools, colleges, and departments of education throughout the country. Special thanks are due the deans or chairpersons of these units and their staffs who responded to a time-consuming request. A complete list of these institutions is found in Appendix E.

From chapter to chapter in this report the reader will find some redundant statements and explanations due to the fact that most of the chapters were written and distributed over the past six months as separate documents in the Research on Institutions of Teacher Education (RITE) Occasional Papers Series. These chapters were issued separately as they were prepared because we assumed that (1) readers would be interested in having the data in hand as soon as they were available; (2) some of the sub-studies would be of interest to groups and individuals that would not be interested in the full report; and (3) the cost of distributing widely the full report with its appendices would have been prohibitive.

Finally, we must express gratitude to Kathy Jones, an undergraduate student at Indiana University, who typed the final manuscript, and to Deborah Catlett and Sherry Krider, who served as project secretaries during the first two years of the project's operation.

April 30, 1977
Bloomington, Indiana

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CHAPTER I

THE NATURE OF THE STUDY

Introduction

Among the variety of organizations and agencies that are usually subsumed under the rubric of the educational knowledge production and utilization (KPU) "system"[1] in the United States, none is subject to a more encompassing set of role expectations than the university-based school, college, or department of education (SCDE). The central function of SCDEs is the training of educational personnel; this function has the highest legitimation within the SCDE and consumes the major portion of its resources and energy. But SCDEs are nevertheless perceived by many to be a leadership agency within the educational KPU community. They are expected to produce R and D, i.e., knowledge about educational processes and solutions to operating problems in educational agencies. They are expected to be dissemination and diffusion agencies spreading knowledge to other operating agencies and assisting in bridging the gap between knowledge production and utilization. And of course, SCDEs are expected to be innovative in modifying their own practices.

There has been a broad gap between these multiple organizational role expectations and the degree of satisfaction expressed by critics in regard to the performance of SCDEs in these roles. The institutions as a group have been attacked from within and without for producing practitioners who not only fail to perform as change agents in the schools but are bastions of the status quo[1] for producing little in the way of significant R and D products, and, as a matter of fact, for maintaining institutional climates antithetical to the production of R and D;[2] and for being ineffectual change agents in facilitating the dissemination, diffusion, and adoption of changes in the schools.[3]

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[1] There is considerable doubt as to whether the term "system" is appropriately applied to the configuration of agencies that engage in or make some contribution to educational KPU. For an alternative view see Egon G. Guba and David L. Clark, The Configurational Perspective: A View of Knowledge Production and Utilization (Council for Educational Development and Research, Inc.: Washington, D. C.), 1974.

Whether such criticisms are warranted has been a moot question, for very little has been known about SCDEs and the roles they do or might be expected to play in knowledge production and utilization in education. No basic data about them has been systematically gathered. SCDE administrators have had available to them little knowledge about the tactics and strategies of change or the factors affecting change in their own institutions. Planners concerned either with increasing the quantity of KPU products or the capacity of SCDEs to produce them have been similarly hampered by lack of relevant information.

The present study was designed to be responsive to this situation, and had the following objectives:

1. To portray the status of SCDEs as components of the nation's educational KPU system. Specifically, the study was designed to collect

---

[1] See for example James B. Conant, The Education of American Teachers (McGraw-Hill Book Co.: New York), 1963; or James D. Koerner, The Miseducation of American Teachers (Houghton-Mifflin Co.: Boston), 1963; or Charles F. Silberman, Crisis in the Classroom: The Remaking of American Education (Random House: New York), 1970; or Paul A. Olson et al., The University Can't Train Teachers (U. S. Office of Education: Washington), 1971; or Study Commission on Undergraduate Education and the Education of Teachers, Teacher Education in the United States: The Responsibility Gap (University of Nebraska Press: Lincoln), 1976.

[2] Sam D. Sieber and Paul F. Lazarsfeld, The Organization of Educational Research in the United States (Bureau of Applied Socicl Research, Columbia University: New York), 1966.

[3] Henry M. Brickell, Organizing New York State Schools for Educational Change (New York State Education Department: Albany), 1961.

and analyze data about (a) the roles or missions which these institutions define and accept for themselves; (b) the institutional agents, agencies, and supportive arrangements which the SCDEs establish to initiate, stimulate, or support those missions; and (c) the achievements which can properly be credited to SCDEs, i.e., the KPU products.

2. To assess the nature and power of factors that are currently impacting SCDEs and that may affect the pattern of KPU performance in them in the near (five to 10 years) future. These factors include (a) those internal to the SCDE or the institution of higher education in which it may be found, and (b) those external to the institution of higher education and the SCDE.

3. To estimate the likely posture of SCDEs after a five-to-10 year period with respect to KPU productivity.

4. To posit selected alternative futures that might be achieved instead, particularly from the point of view of planners who might wish either to (a) increase the quantity or quality of KPU productivity, (b) increase the capacity of SCDEs to engage in KPU activity, or (c) change the essential role which SCDEs might play as part of the national configuration of educational KPU agencies.

5. To make whatever implementing recommendations seem appropriate and possible.

Logical Structure

The procedures employed in the study will be discussed in Chapter II, but certain conceptual elements have undergirded the study in such a pervasive manner that they deserve to be explicated at the outset, so as to set the stage for what is to follow. These include the process of sequential organizational analysis that guided most of the data collection activity, the futures design on which projections were based, and the definition of selected key terms used throughout the study. Brief sections touching on each of these follow.

Sequential Organizational Analysis

The objective of the study, to portray the status of SCDEs with respect to educational KPU, posed some special data collection problems. How can one determine in a valid and feasible way the extent to which an SCDE is making a serious effort in the KPU arena, and the extent to which that effort is successful? Case studies suggest themselves immediately as a means, but case studies are expensive and logistically difficult to mount; moreover, the limited number that are usually feasible raises questions as to the generalizability of the findings. On the other hand, more general normative approaches, as exemplified by the ordinary questionnaire survey, seemed inadequate in view of the complexity of the questions involved.

The process which was hit upon to resolve this dilemma is unusual in educational inquiry. It might be characterized as a kind of Sherlock Holmesian strategy, but the terminology suggested by Michael Scriven, that of modus operandi analysis, seems more appropriate. This approach was proposed by Scriven as a method for causal analysis. Scriven suggests:

> The /modus operandi/ of a particular cause is an associated configuration of events, processes, or properties, usually in time sequence, which can be described as the characteristic causal chain (or certain distinctive features of this chain) connecting the cause with the effect. In its most common usage, in criminalistics, the term refers to such characteristics as the method of entry used by a burglar, the kind of weapon and occasion used by a hit man, the communications process used by kidnappers.[1]

---

[1] Michael Scriven, "Maximizing the Power of Causal Investigations: The

The method used in this study rested on the idea of the characteristic causal chain. It is unlikely that an institution which might be ranked "high" on institutional productivity achieved that status purely haphazardly; it is much more likely that certain characteristic steps were taken by the institution to achieve it, and that certain characteristic features distinguish the process and products that result from those efforts.

Reasoning along these lines led the investigators to propose an approach which was dubbed "sequential organizational analysis," a process by which certain indicators believed to constitute a causal chain could be systematically investigated, whether by questionnaire, telephone interview, or site visit. This approach involved the identification of three "screens" through which institutions could be successively passed, each of which would provide some estimate about either the effort expended by an SCDE (or IHE) in pursuit of educational KPU, or about the yield resulting from that effort. These three screens are:

1. The *mission or goal posture* of the SCDE. It can be safely assumed that an institution whose goal or mission statement does not contain an explicit reference to KPU is not likely to pursue it. In some instances, an SCDE may explicitly deny KPU as a mission area; this negative indicator can be taken as virtual assurance that little if any KPU activity will be found there. Key indicators of this mission or goal posture include formal, published documents (e.g., a faculty handbook or college bulletin statement, a report to an accrediting body); secondary indicators include statements made by key administrators and perceptions of relevant groups including faculty and clients.

Modus Operandi Method," in W. James Popham (Ed.), *Evaluation in Education* (McCutchan Publishing Corporation: Berkeley, CA), 1974, pp. 71.

2. The organizational arrangements made by the institution in support of its declared or implied KPU mission. Institutions that believe they have a KPU mission are likely to make certain organizational, fiscal, personnel, and other arrangements to maximize the likelihood that the mission will be achieved. Key indicators include the existence of a formal bureau, center, or institute for KPU; designated support, stimulation, or technical assistance staff (associate dean for research, faculty committee, etc.); budget provisions (regularized professorial time designated for KPU activity, seed grants, designated positions, etc.); personnel evaluation provisions keyed to KPU activity or productivity (promotion, tenure, recruitment criteria); existence of a research foundation; in-house KPU publication channels (journal, newsletter, etc.). Secondary provisions include additional budgetary provisions such as SCDE discretionary funds, research travel funds, willingness to provide ad hoc released time for faculty (often externally reimbursed), existence of physical and clerical support facilities, established relationships with other KPU entities inside or outside the IHE (inter-departmental appointments, consortia, school study councils, etc.).

3. The process-product indicators of KPU activity. These include the amount of faculty time actually spent in pursuit of KPU activities such as research, development, evaluation, demonstration, field-service, and the like, and the actual artifacts or products resulting from such activity, such as journal articles, developed products (e.g., curricula) for use in schools, convention papers, and the like.

The three screens outlined above were in fact used as the basis for instrument development, data collection, and data analysis throughout the project. It is the post hoc judgment of the investigators that the approach not only had utility in organizing the work of the project but in fact establishes high validity for the final data. The various elements of the screens represent normal, rational, bureaucratic responses and assessments. Imagine, if one can, what a dean of a school of education might do to stimulate or support educational KPU without utilizing any of the organizational arrangements described in relation to that screen. Or imagine by what criteria one might characterize an institution as productive in the KPU arena without employing any of the processes or yielding any of the products described in relation to that screen. While imaginative or innovative postures regarding KPU missions may exist, while exotic institutional arrangements may be imagined, or while unusual processes or products may be conceived, it would be fanciful indeed to suppose that only such elements would exist in a given institution so that while it was making strong efforts and producing impressive yields, it would escape attention when passed through the screens. And conversely, it is difficult to imagine an institution that would score high on these indicators and in fact be making little or no effort and producing almost nothing.

One caveat is in order: it should be noted that the three screens were not in fact used contingently. That is, it was not assumed that an institution for which no evidence of mission commitment could be found would have no institutional arrangements or be unproductive. Institutions were examined on all dimensions regardless of the results obtained on an earlier screen in the sequence. It is the case, however, that in almost all instances an early deficiency recognized through this sequential organizational analysis predicted with high probability the existence of deficiencies in subsequent screens.

The Futures Design

A major interest of the investigators was not only to assess the current KPU status of SCDEs but also to make some predictions about likely and alternative KPU futures for SCDEs. The general conceptualization which was borne in mind in thinking about this interest is captured in Figure I-1.

It was assumed that the collection of data on the current status of SCDEs in the area of KPU would permit the typification of current KPU roles. These typifications would constitute current or contemporary scenarios whose major themes would encompass the indicators of the three sequential organizational screens and certain basic demographic data.[1] If this current status were taken as a benchmark, it could be assumed that the future posture of SCDEs, whatever that might be, could be evolved from this base. The future would result from the impact of two sets of variables, labeled "impact factors" by the investigators: (1) external impact factors, those outside the purview of either the SCDE or the IHE in which it was located, e.g., demand for teachers or fall-off in IHE budget provisions in state legislatures, and (2) internal impact factors, those within the organizational context of the SCDE or the IHE in which it was located, e.g., such organizational characteristics as the nomothetic-idiographic balance in IHEs, or the decision making mode of IHEs/SCDEs.[2] If the impact

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[1] The investigators were aware from the beginning that a single typification of the current KPU status of SCDEs would not be possible because of the enormous diversity among the many extant SCDEs. This problem was resolved by the development of a classification system into which the different types of SCDEs might be placed. See Chapter II for details of this system.

[2] From the point of view of the SCDE, the distinction drawn here between

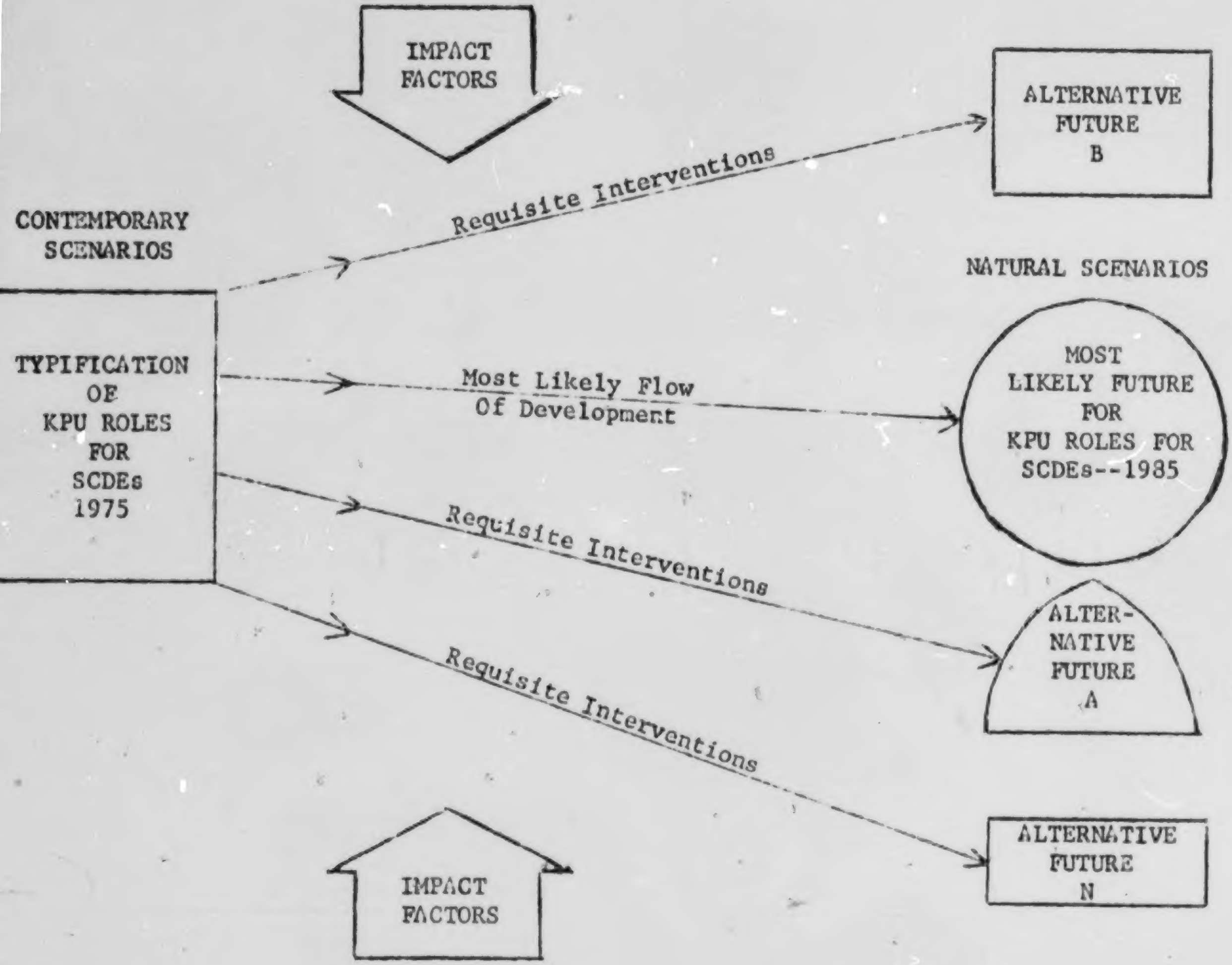
IMPACT FACTORS
CONTEMPORARY SCENARIOS
TYPIFICATION OF KPU ROLES FOR SCDEs 1975
Requisite Interventions
ALTERNATIVE FUTURE B
Most Likely Flow Of Development
NATURAL SCENARIOS
MOST LIKELY FUTURE FOR KPU ROLES FOR SCDEs--1985
Requisite Interventions
ALTER-NATIVE FUTURE A
Requisite Interventions
ALTERNATIVE FUTURE N
IMPACT FACTORS

FIGURE I-1: RATIONALE FOR THE FUTURE DESIGN OF THE STUDY.

factors could be properly assessed, and assuming no dramatic or revolutionary inputs, the "natural future" of the SCDE could be fairly accurately predicted, i.e., the most likely future posture that would result given no external interventions.

If for some reason this "natural future" were considered either undesirable or inappropriate, as, for example, by SCDEs themselves, by IHE administrators (or state boards of higher education), or by planners in external change agencies such as NIE, USOE, or a foundation, alternative futures might be posited. It was evident at once to the investigators that the championing of particular alternatives would be an inappropriate posture for the study, but it might be possible to outline a variety of reasonable alternatives which might have appeal to individual SCDEs, IHEs, or planners. If a particular agent or agency wished to pursue a particular alternative, the information of greatest utility to the change agent would be some indication of the nature and power of the interventions required to achieve it. Thus a thrust of the study was to posit such interventions, to assess their power and the conditions required to mount them, and to make recommendations concerning general strategies that would combine these interventions in most effective and feasible forms. The study is concentrated at this point on interventions that might be mounted by the Federal government, on the grounds that they will have the greatest power, be most pervasive, and are probably sine qua nons for strategies that can be mounted by individual IHEs and SCDEs.

Definition of Key Terms

Two basic terms are of such importance throughout this report that

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internal and external factors is somewhat muddied by the fact that factors internal to the IHE are often external to the SCDE, e.g., IHE criteria used in the promotion/tenure process. This problem was not sufficiently prominent to void the proposed approach, however.

formal definition seems warranted.

1. Schools, colleges, or departments of education. The investigators had assumed, quite naively as it turned out, that a listing of all extant schools, colleges, or departments of education would be easily acquired. This was not the case; neither the Federal government, existing secondary sources (e.g., directories of higher education), nor formal organizations of teacher training agencies or agents such as the American Association of Colleges for Teacher Education or the National Association of State Directors of Teacher Education and Certification had accumulated a single, comprehensive list of SCDEs. Recourse was had in the final analysis to the 50 individual state education agencies (SEAs), which were asked to provide lists of all programs for the training of educational professionals approved by the SEA.[1] A school, college, or department of education is thus defined, for purposes of this study, as any baccalaureate or higher level program certified to the project staff by the appropriate SEA as a state approved program. This, of course, includes programs that do not lead to a separate education degree but which do prepare personnel for initial certification.

2. Educational knowledge production and utilization. The problem of defining what is meant by knowledge production and utilization plagued the investigators throughout the study. On the one hand, it seemed useful to provide a systematic definition of the term for the sake of communicating unambiguously to the study respondents. On the other hand, there is no clear agreement in the educational community on what the term should encompass, so that the investigators felt that proferring a formal definition

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[1] Accreditation is carried out by all SEAs except Nevada; in the case of that state the Department of Public Instruction provided a list of all training programs known to it.

might cause respondents to exclude novel items or approaches they might otherwise include and which ought to be brought to the attention of the investigators.

An ambivalent solution to this problem was devised by the expedient of developing an internal definition to guide the activities for the staff but relying on activity lists to guide responses from the field. Internally, the staff felt that knowledge production (KP) ought to include as "standard equivalent terms," basic and applied research in education, conclusion and decision-oriented inquiry, operational or institutional research, product-oriented or developmental research, social bookkeeping, and inventing, designing, and fabricating generalizable solutions to operating problems. The staff felt that KP ought not to include such terms as action research, local evaluation projects, service activities, or instruction/teaching. For purposes of knowledge utilization (KU), the staff felt that change process activities (e.g., awareness, interest, evaluation, trial, and adoption), education service activities (e.g., conducting school surveys, helping operating systems evaluate new programs), informing/demonstrating/training activities, needs assessments, and information retrieval activities ought to be included, while regular degree programs, routinized school-college relationships (e.g., student teaching or placement), and college alumni activities ought not to be included. Formally, the following definitions were adopted:

a. Knowledge production. Any systematic study of educational contexts, processes, or products involving disciplined inquiry (regardless of method) for the purpose of adding to the knowledge base in the field of education. Knowledge production usually encompasses:

   (1) CONDUCTING INDIVIDUAL AND GROUP INQUIRIES of a basic or applied nature relating to education.

(2) MAINTAINING A DATA BASE for and about education.

(3) PROVIDING INFORMATION TO DECISION MAKERS in education.

(4) INVENTING OR DESIGNING GENERALIZABLE SOLUTIONS to operating problems in educational agencies.

(5) TESTING AND EVALUATING GENERALIZABLE SOLUTIONS to educational problems.

b. Knowledge utilization. Any disciplined application of knowledge about education (including but not restricted to the formal products of knowledge production) for the purpose of assisting educational practitioners and operating agencies to better cope with their operational obligations. Knowledge utilization is normally directed toward:

(1) DEVELOPING AWARENESS OF ALTERNATIVE SOLUTIONS to operating problems.

(2) DIAGNOSING AND RESPONDING to operating problems.

(3) ASSESSING ALTERNATIVE ROUTES of action for operating systems.

(4) TRAINING INDIVIDUALS in the use of solutions and programs.

(5) SERVICING AND NURTURING installed solutions and programs.

(6) MAINTAINING IMPETUS for institutional self-renewal and problem solving.

But these definitions were not utilized in any data collection activity, partly because they were too complex to be communicated easily, and partly because the investigators did not wish to constrain the range of responses which might be made by a subject. Instead, lists of activities were substituted from which the subject might infer whatever definition he/she chose. So for example, the institutional questionnaire used in the study asked the respondent to assess the level of involvement of the SCDE in each of the following activity areas:

1. Developing generalizable educational products, e.g., texts, other curricular materials.
2. Testing and evaluating generalizable educational products and services.

3. Disseminating information about educational innovations.
4. Effecting change in elementary and secondary schools.
5. Evaluating school practices.
6. Producing basic knowledge about education.
7. Producing applied knowledge about education.
8. Maintaining a data base for and about education.
9. Conducting in-service projects and programs for school personnel (excluding regular advanced degree programs).
10. Providing individually negotiated consultant assistance.
11. Conducting field service projects with and for schools.
12. Demonstrating new practices and innovations.
13. Servicing and nurturing new programs that have been installed in schools.

Respondents were urged to add activities, i.e., "The items in this list are intended to encompass the 'usual' range of SCDE activity, but your SCDE may have other activities which from your point of view obviously should be included on the list. Please insert these."

Respondents to the faculty questionnaire used in the study typically responded to four different KPU areas:

1. Research and scholarly activity (left undefined).
2. Development, dissemination, and demonstration, defined as "including the design and preparation of generalizable instructional materials such as textbooks, audio-visuals, workbooks, etc.; of teaching techniques, administrative patterns, and other novel concepts, practices, or artifacts; dissemination of information about or demonstration of any of the foregoing to a wide range of potential adopters; or evaluation of any of the foregoing."
3. Ad hoc services to schools and other educational agencies (left undefined).
4. Effecting change in schools or other educational agencies, defined as "including needs assessments, assistance in selecting

> new programs or practices responsive to local needs, retraining of faculty and staff as required by newly installed innovations, demonstrating new approaches that are under consideration for adoption, servicing and nurturing newly installed programs."

In telephone or site visit interview situations, the term KPU was seldom used; instead the respondent was asked to consider SCDE "non-teaching" functions, usually defined as all professional activities in which a faculty member might engage excluding his usual instructional activities (including student advising) and committee assignments.

It should be apparent from these examples that while the staff had a well-developed definition of KPU in mind for its own purposes, it did not formally intrude this definition upon respondents and made every effort to encourage them to make their own inclusion/exclusion decisions.

CHAPTER II

THE PROCEDURES OF THE STUDY

The several sections of this chapter will acquaint the reader with the major procedures followed in the study. Included are descriptions of (1) the population of SCDEs with which the study was concerned; (2) the category systems devised for sampling purposes and for data analysis and reporting; (3) the sample on which questionnaire studies and site visits were based; and (4) the several data gethering activities involved, i.e., the institutional questionnaire, the faculty questionnaire, various secondary data sources, site visits and other direct institutional contacts, and the productivity studies.

The Population of SCDEs

Originally the investigators set out to include all institutions that offered educational personnel training programs leading at least to the baccalaureate degree. The identification of institutions that fitted this criterion turned out to be a more difficult matter than had been anticipated and required the cross-referencing of a number of specific lists. These included:

1. The FICE list. Every institution of post-secondary education in the United States is presumed to be listed by the Federal Interagency Council on Education, which assigns it a unique FICE number. Such a list was made available to the RITE staff by the National Center for Educational Statistics, but was found to be faulty on two grounds: it was incomplete, and it was not always possible to determine whether a particular institution offered an education program leading to a degree, since, in many cases, education departments do not offer their own degrees but simply offer service courses for students enrolled in liberal arts schools, departments, or colleges.

2. The EDSTAT printout. The National Center for Educational Statistics maintains a service known as EDSTAT through which a variety of computerized

data sources may be queried. Included among these sources are the tapes for the various HEGIS surveys (Higher Education General Information Survey) which store, among other data items, the number of degrees awarded by each institution in various substantive fields. A printout was obtained for Fiscal Year 1971 (the most recent available at the time) which listed all institutions awarding at least one degree in education at baccalaureate or higher levels. This list was also unsatisfactory, however, since (1) some institutions elect not to participate in the HEGIS surveys, (2) in a few instances it seemed possible that small institutions might not have graduated anyone during the sample year, and (3) to use the list would have required the acceptance of 1970-71 as the base academic year. This latter compromise seemed especially unfortunate since the demand for teachers had dropped off sharply between 1970-71 and 1974-75 leading to the suspicion that a number of SCDEs might have been phased out during this time period.

3. The USOE Education Directory: Higher Education listings. The Department of Health, Education, and Welfare publishes annually a directory of institutions of higher education in which program information is listed. All institutions described in this directory as offering four year programs in teacher education were included. This list is essentially identical with the FICE list.

4. The AACTE Membership list. The American Association of Colleges for Teacher Education provided a printout of the 869 institutions that comprised its membership list for the 1972-73 academic year.

5. The NCATE accreditation list. The 21st Annual List (1974-75) of institutions accredited by the National Council for the Accreditation of Teacher Education included a smaller number of institutions but ones which surely should be included in the study.

6. NASDTEC lists. Directors of teacher certification in state education agencies form an association known as the National Association of State Directors of Teacher Education and Certification (NASDTEC), which publishes an annual list

of state-certified teacher education programs for the (then) 21 states and the District of Columbia which have signed the state certification reciprocity agreement. The 1973-74 list was utilized. As in the case of NCATE, within the 21 states included, the listed programs were clearly among those the study wished to include.

7. Letters to other state departments of education. The NASDTEC source seemed so useful for the 21 states (and more complete than any other single source to which the investigators had turned) that individual letters were sent to all SEAs not included in the NASDTEC list. Responses were received in all cases listing the state approved programs for the training of teachers and other education specialists (except in the case of Nevada, which does not certify programs; in that case the SEA provided a list of all programs within the state).

These various sources were collated to produce a single list of 1,441 institutions. All of these institutions were either included in a combination of the NASDTEC list and the SEA responses or were tracked down as having dropped their education programs in recent years or months. Accordingly, the project staff adopted the operational definition for the population of SCDEs that they were to be all institutions operating a state accredited program in teacher education (except Nevada, where institutions contained in the state department list of known programs were included). In fact, the population redefined also fits the original definition, i.e., all SCDEs that could be located. No other programs, whether state accredited or not, could be located using standard reference sources.

A brief questionnaire was sent to each of these 1,441 institutions to verify the existence of the education program and to determine the name of a contact person for future reference. The response rate for this questionnaire was, disappointingly, less than 50 per cent; however, it was possible to delete a number of institutions either because the college or university had closed or because an institutional respondent indicated that the SCDE was no longer in existence. Data from other secondary sources (e.g., the list of recently closed institutions that appears from time to time in the Chronicle of Higher Education) allowed the staff to reduce the list even further. The final group of 1,367 institutions (72 per cent of all baccalaureate or higher degree institutions in the United States and territories) on which study analyses were based is shown in Table II-1, as distributed over the 54 states and territories.

The RITE Category System

It was evident early on in the study that it would not be possible to deal with 1,367 SCDEs as though they were a homogeneous set of institutions--they differed so dramatically in so many ways. Moreover, it was imperative to draw a representative sample of institutions from which more detailed data could be solicited, and some basis for the sampling process needed to be established. Thus a category system was devised which would permit more stratified grouping of the institutions and also provide a basis for subsequent sampling.

Three criteria were considered important in devising a rationale for such a category system: (1) the system should be one which would permit the faculty and administration of a given institution to classify themselves quickly so as to be able to relate to whatever data were ultimately produced, (2) the system should have some generic relationship to previous systems that had been devised for classifying IHEs so that policy makers would feel comfortable in employing the system in discussing IHEs and SCDEs, and (3) to the extent possible with gross demographic data as the base, the system should have some relationship to KPU productivity--the primary focus of the study.

The process through which the system categories were defined was complex; the complete procedures, together with rules for determining how a given institution should be classified, are detailed in Appendix C. In brief, the process

TABLE II-1

DISTRIBUTION OF 1,367 SCDEs BY STATE AND TERRITORY

State or Territory	No. of Inst.	Per Cent of Inst.	State or Territory	No. of Inst.	Per Cent of Inst.
Alabama	30	2.19	Montana	8	0.59
Alaska	4	0.29	Nebraska	15	1.10
Arizona	5	0.37	Nevada	2	0.15
Arkansas	17	1.24	New Hampshire	15	1.10
California	86	6.29	New Jersey	30	2.19
Colorado	15	1.10	New Mexico	9	0.66
Connecticut	17	1.24	New York	128	9.36
Delaware	2	0.15	North Carolina	44	3.22
District of Col.	10	0.73	North Dakota	8	0.59
Florida	28	2.05	Ohio	53	3.88
Georgia	32	2.34	Oklahoma	19	1.39
Guam	1	0.07	Oregon	16	1.17
Hawaii	4	0.29	Pennsylvania	89	6.51
Idaho	6	0.44	Puerto Rico	12	0.88
Illinois	64	4.68	Rhode Island	9	0.66
Indiana	44	3.22	South Carolina	25	1.83
Iowa	27	1.98	South Dakota	12	0.88
Kansas	24	1.76	Tennessee	37	2.71
Kentucky	22	1.61	Texas	62	4.54
Louisiana	22	1.61	Utah	6	0.44
Maine	15	1.10	Vermont	12	0.88
Maryland	23	1.68	Virginia	30	2.19
Massachusetts	45	3.29	Virgin Islands	1	0.07
Michigan	32	2.34	Washington	16	1.17
Minnesota	27	1.98	West Virginia	18	1.32
Mississippi	17	1.24	Wisconsin	31	2.27
Missouri	40	2.93	Wyoming	1	0.07
			Total	1,367	100.03

was as follows:

Establishment of "Gross" Categories

Three easily identified variables, often used in classifying institutions of higher education, were used for this purpose: control, i.e., public or private; degree level, i.e., doctoral, masters, or baccalaureate,[1] and reporting channels, i.e., main or regional campus (a regional campus being one which reports to the administration of a "mother" campus, rather than, for example, to a state board of higher education or a state chancellor of higher education). Eight categories were defined:[2]

1--Public doctoral institutions.
2--Private doctoral institutions.
3--Public masters institutions.
4--Public masters institutions: regional campuses.
5--Private masters institutions.
6--Public baccalaureate institutions.
7--Public baccalaureate institutions: regional campuses.
8--Private baccalaureate institutions.

Establishment of "Fine" Categories

Within each gross category an effort was made to define a series of sub-categories which represented crudely an estimated level of involvement in KPU. In general, sub-categories A, B, C, and X were established for each of the eight gross categories, with A representing highest estimated involvement, B intermediate probability of involvement and C low likelihood of involvement. X level institutions were defined as institutions with zero probability of KPU involvement. The variables utilized in making the productivity estimates were:

1--Institutional enrollment (smaller institutions were assumed to have lower probability of involvement).
2--Regional accreditation (unaccredited institutions were assumed to have lower probability).
3--NCATE accreditation (unaccredited institutions were assumed to have lower probability).
4--AACTE memberships (non-members were assumed to have lower probability).
5--Single purpose orientation (institutions having special purpose

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[1] In this study, of course, degree level was the highest degree level offered in education not necessarily the highest degree level offered by the institution in any field.

[2] Obviously the theoretically possible number of categories is 12 (2 patterns

orientations, e.g., music, business, theology, were assumed to have lower probability).

6--Special status of the institution as a state university or land-grant college (institutions with such status were assumed to have higher probability).

7--Number of students in education (higher enrollment institutions were assumed to have higher probability).

8--Size of faculty in SCDEs (larger faculty was assumed to have higher probability).

9--Known involvement in KPU (some SCDEs specified KPU involvement in their responses to the brief demographic questionnaire and such information was, of course, taken as pre-eminent over other indicators of low or no involvement).

In addition, certain public and private institutions were classified as high probability institutions because they appeared on quality lists published in the literature (often reputational studies). See Appendix C for details.

The categories utilized throughout the study that emerged from this classification system are detailed in Table II-2. The "A" (presumed highest productivity) category was sub-divided into two sets for the public and private doctoral level institutions and into three sets for all other categories. A full rationalization for this and all other elements of the classification schema are included in Appendix C.

Solely to make the report readable and comprehensible, the original category system was simplified (from 46 to 12 categories) at the time the data were assembled into final form for reporting. The modified category system is portrayed in Table II-3 and the effect of this change on the generalizability of some of the demographic data reported in the study is described in detail in Chapter III, pp. 5, 6, 15.

The Study Sample

Logistical considerations mandated the selection of a sample of institutions

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of control X 3 degree levels X 2 autonomy levels). However, the number of private institutions maintaining regional campuses was miniscule and doctoral level education programs in public regional campuses was nil.

TABLE II-2

DISTRIBUTION OF SCDEs INTO RITE CATEGORIES

Category	N
Public Doctoral Institutions	
1A1*	23
1A2**	61
1B	19
1C	9
1X	0
Total 1	112
Private Doctoral Institutions	
2A1*	11
2A2	15
2B	6
2C	9
2X	10
Total 2	51
Public Masters Institutions	
3A1	54
3A2	78
3A3	51
3B	41
3C	18
3X	6
Total 3	248
Public Masters Institutions--Regional Campuses	
4A1	1
4A2	1
4A3	9
4B	11
4C	10
4X	4
Total 4	36
Private Masters Institutions	
5A1	1
5A2	24
5A3	50
5B	80
5C	89
5X	34
Total 5	278
Public Baccalaureate Institutions	
6A1	0
6A2	15
6A3	17
6B	18
6C	10
6X	6
Total 6	66
Private Baccalaureate Institutions --Regional Campuses	
7A1	0
7A2	1
7A3	4
7B	12
7C	9
7X	0
Total 7	26
Private Baccalaureate Institutions	
8A1	0
8A2	25
8A3	79
8B	167
8C	198
8X	81
Total 8	550
Grand Total	1,367

*Institutions were classified into the 1A1 and 2A1 categories on the basis of high ratings in previously published studies of KP productivity and ratings of general program quality in education, and are often referred to in this report as "research center institutions."

**The 1A2 category was actually subdivided for analytic purposes into 1A2S--institutions holding membership in the Association of Colleges and Schools of Education in State Universities and Land Grant Colleges--and 1A2O--others.

TABLE II-3

DISTRIBUTION OF SCDEs INTO FINAL REPORTING CATEGORIES

Institutional Type	RITE Categories Included in Type	N
A Public--Public Research Center Institutions (Doctoral Level)	1A1	23
A Private--Private Research Center Institutions (Doctoral Level)	2A1	11
B Public--Other Public Institutions for Advanced Graduate Study	1A2, 1B, 1C, 1X	89
B Private--Other Private Institutions for Advanced Graduate Study	2A2, 2B, 2C, 2X	40
C Public--Public Pre/In-Service Teacher Education Centers (Masters Level)	3A1, 3A2, 3A3	183
C Private--Private Pre/In-Service Teacher Education Centers (Masters Level)	5A1, 5A2, 5A3	75
D Public--Other Public Pre/In-Service Teacher Education Institutions	3B, 3C, 3X, 4A1-4X	101
D Private--Other Private Pre/In-Service Teacher Education Institutions	5B, 5C, 5X	203
E Public--Public Pre-Service Teacher Education Centers (Baccalaureate Level)	6A1, 6A2, 6A3	32
E Private--Private Pre-Service Teacher Education Centers (Baccalaureate Level)	8A1, 8A2, 8A3	104
F Public--Other Public Pre-Service Teacher Education Institutions	6B, 6C, 6X, 7A1-7X	60
F Private--Other Private Pre-Service Teacher Education Institutions	8B, 8C, 8X	446
	Total	1,367

from which comprehensive data would be solicited. Two criteria vied for primary attention in constructing this sample: representativeness and maximizing informational return. Ideally, it would have been appropriate to sample each of the

RITE categories by a constant sampling fraction; data returns would have been optimally representative for the total population of SCDEs under such conditions. But to have taken such a course would have meant that a large proportion of the data would have been drawn from institutions that had a very low, even zero, probability of KPU productivity; such institutional data would have added little to an understanding of the factors that affected KPU. Accordingly a number of decisions were made to circumvent this problem:

1. Sample size was set for logistical reasons as not to exceed 200.

2. All "X" and "C" category institutions were eliminated from consideration on the grounds that the probability of KPU involvement in these institutions was too low to warrant detailed study (exception: Category "1" and "2" "C" level institutions were retained on the grounds that while they had low KPU probability among doctoral level institutions, their overall KPU productivity in relation to the total population of SCDEs might still be sufficiently high to warrant attention).

3. Categories were sampled differentially to bias the sample in favor of institutions in which the probability of KPU involvement was higher. The following sample fractions were used:

   a. 30 per cent for categories judged to be highest in probability of KPU involvement, i.e., 1A1, 1A2, 2A1, and 2A2.

   b. 20 per cent for categories judged to be intermediate in probability of KPU involvement, i.e., 1B/1C, 2B/2C, 3A1, 3A2, 3A3, 5A1, 5A2, 5A3, 6A2, 6A3, 8A2, and 8A3.[1]

   C. 15 per cent for regional campuses as a special interest group, i.e., combining the sub-categories of "4" and "7" into two general categories.

   d. 10 per cent for all remaining categories, i.e., 3B, 5B, 6B, and 8B.

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[1] Categories 6A1 and 8A1 belong in this sampling class but were empty sets.

e. In no case, however, was the absolute size of the sample for any category allowed to fall below five, in order to facilitate any inter-category comparisons that might be made.

The planned sample drawn by these rules produced an overall group of 175 institutions. Actual returns were received to the institutional questionnaire from 135 institutions, however, and it is on this group that many data analyses were performed. Table II-4 indicates the relationship of the population, planned sample, and returned sample.

A final sample of 20 institutions was drawn for site visit purposes. These 20 institutions were selected from among the 135 returnees to the institutional questionnaire. No set of only 20 institutions could have been drawn that could be argued to be representative of the population of SCDEs. The 20 finally selected were divided between "typicalness" and "atypicality." At least one institution was chosen from categories one, two, three, five, six, and eight which was judged from the institutional questionnaire returns and the demographic data to be typical of its category. The remaining 14 options were used to identify SCDEs that exhibited atypicality in their questionnaire returns, i.e., they had either been involved more heavily in KPU than the typical SCDE in their category and/or had exhibited some unusual arrangements in support of KPU or pattern of involvement in KPU. The assumption was made by the investigators that all institutions could serve the purpose of validating the institutional questionnaire and the limited options available for site visits would be expended most wisely in examining SCDEs which might be harbingers of change in KPU activities in education.

A full rationalization and description of the sampling process may be found in Appendix B. A listing of site visit institutions is included in Appendix E.

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[1] Categories 6A1 and 8A1 belong in this sampling class but were empty sets.

TABLE II-4

RELATIONSHIP OF SCDE POPULATION OF LIKELY KPU INVOLVED INSTITUTIONS, PLANNED SAMPLE, AND ACTUAL RETURNS

Category	Population N	Planned Sample N	Planned N As Per Cent of Population	Actual Returns N	Returns N As Per Cent of Population
1A1	23	8	34.78	7	30.43
1A2S	42	12	28.57	10	23.81
1A2O	19	5	26.32	5	26.32
1B/1C	28	4	14.29	4	14.29
2A1	11	5	45.45	5	45.45
2A2	15	6	40.00	4	26.67
2B/2C	15	5	33.33	4	26.67
3A1	54	10	18.52	6	11.11
3A2	78	15	19.23	12	15.38
3A3	51	11	21.57	7	13.73
3B	41	8	19.51	5	12.20
4 (Comb.)	22	5	22.73	3	13.64
5A1	1	0	0.00	---	---
5A2	24	6	25.00	6	25.00
5A3	50	10	20.00	8	16.00
5B	80	8	10.00	7	8.75
6A1	0	---	---	---	---
6A2	15	5	33.33	4	26.67
6A3	17	5	29.41	2	11.76
6B	18	5	27.78	2	11.11
7 (Comb.)	17	5	29.41	4	23.53
8A1	0	---	---	---	---
8A2	25	4	16.00	3	12.00
8A3	79	17	21.52	16	20.25
8B	167	16	9.58	11	6.59
Total	892[1]	175	19.62	135	15.13

[1] This does not total 1,367 since, as was noted in the text, "C" and "X" type institutions were dropped from categories three-eight and "X" institutions were dropped in Category "2".

The Major Data Blocks

Five major data gathering activities were pursued in the study. These were: (1) an institutional questionnaire, (2) a faculty questionnaire, (3) selected secondary source demographic data, (4) institutional site visits and other direct institutional contacts, and (5) productivity studies. Each is described briefly below.

The Institutional Questionnaire

A copy of the institutional questionnaire and of the cover letter that accompanied it are included in Appendix A. The reader may wish to examine these documents before proceeding with this section.

The institutional questionnaire was sent to each of the 175 institutions in the sample described in the preceding section. Before the questionnaires were mailed, telephone contact was made with each of the education deans or chairpersons at these institutions to explain the purpose of the study and the scope of the questionnaire, and to solicit cooperation in completing and returning the instrument. All 175 deans/chairpersons agreed to do so; however, only 135 returns were actually received, despite multiple telephone follow-ups. Both in the initial telephone conversation and in the cover letter accompanying the instrument it was explained to the respondent that he/she should feel free to contact the investigators by telephone if questions arose in regard to the instrument. They were told further that ambiguous questions should be left blank to be covered in a telephone interview since a follow-up telephone contact would be initiated by the RITE staff if the respondent marked questionnaire items about which there was lack of clarity or in regard to which explanation beyond the scope of a questionnaire was required, or if the staff felt that certain responses were unclear. Such follow-up was in fact made in about one-third of the returned cases.

Respondents were asked not only to complete the questionnaire but to return certain documents if they were available, e.g., a complete faculty roster, a printed mission statement, promotion/tenure policies.[1]

The questionnaire was intended to cover the following broad categories of information:

1. General demographic variables, including total institutional enrollment; number of degree recipients in education at each degree level; availability of programs in education; and number of faculty in education.

2. Mission variables, including the availability of published mission statements; projected geographic region of influence; dean's or chairperson's assessment of the relative importance of 14 KPU activity areas; and general institutional (IHE) support posture with respect to KPU.

3. Organizational arrangements, including existence, character, and funding source of KPU bureaus, centers, or institutes; existence of personnel (associate dean, faculty committee, technical assistants, etc.) to stimulate or support KPU activity; maintenance of laboratory schools, communication channels, university officials, etc., for KPU support; workload and released time arrangements, together with information about expectations held for faculty KPU activity; promotion/tenure criteria and arrangements; other special budgetary provisions for KPU; faculty growth programs; relationships to other IHE units or to units outside the IHE that are KPU oriented; and availability of graduate assistants.

4. KPU process and product variables, including reports on faculty activities and products (e.g., journal articles) in KPU; and existence of KPU graduate training programs.

5. Special considerations, including mandated constraints on KPU activity; involvement in KPU consortia; nature of benefits available to an SCDE strongly involved in KPU; and, for regional campuses, constraints imposed by virtue of having to report via a "mother" campus.

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[1] The actual set of instructions to the respondent is included along with the

6. Future oriented projections in most of the above areas.

As questionnaires were received they were processed by RITE staff as follows:

1. Notations were made covering any telephone follow-up needed, and such follow-ups were made.

2. Selected open-ended items were transcribed onto cards for later analysis.

3. Other items were coded for key-punching, and were key-punched against eventual transfer onto computer tape.

4. Selected breakdowns were made of the data utilizing the CDC 6600 computer available at Indiana University with Statistical Package for the Social Sciences (SPSS) packaged software utilized throughout.

The volume of data collected via the institutional questionnaire was too great for complete analysis and interpretation within the time frame of the project. The bulk of the data, however, are presented in Chapter III, and utilized in subsequent chapters of the report.

The Faculty Questionnaire

A copy of the faculty questionnaire and of the cover letter that accompanied it are displayed in Appendix D. The reader may wish to examine these documents before proceeding with this section.

The faculty questionnaire was sent to a total of 2,915 education faculty members drawn at random from 131 of the 135 SCDEs which had earlier returned an institutional questionnaire.[1] SCDE deans or chairpersons were asked to return current rosters of full-time faculty members when they responded to the institutional questionnaire, and these rosters were used as the basis for the sampling process. In general the following rules were used:

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questionnaire in Appendix A.

[1] Two institutions could not be utilized because the respondents failed to provide a faculty roster; two others were eliminated because their rosters arrived too late to be included in the faculty mailing.

1. For institutions with regular, full-time SCDE faculties of fewer than 25 persons, all SCDE faculty were sent questionnaires.

2. For institutions with SCDE faculties of 100 or more persons, 50 were selected at random to receive questionnaires.

3. For institutions with SCDE faculties ranging from 25 to 99 persons, a number to be sampled was determined from the formula,

$$N_s = 25 + \frac{1}{3}(N - 25),$$

where N_s is the sample size and N is the number of SCDE faculty; thus the minimum sample could be 25 and the maximum 50.

Returns were received from 1,387 respondents (47.6 per cent of the total mailout). Because respondents filled out the questionnaires anonymously, no follow-up to improve the return rate was possible. However the return compares favorably with other opinion studies in the social sciences.

The faculty questionnaire covered the following broad categories of information:

1. General demographic variables, including highest degree information; experience, rank, and tenure status; teaching level and load; and major areas of specialization.

2. Mission variables, including judgments about the importance of mission areas within the respondent's SCDE and the extent of his own involvement in them; about the mission areas for which the SCDE provides a nurturant environment; and about the general institutional (IHE) support posture with respect to KPU.

3. Organizational arrangements, including the weight placed on various mission areas in promotion/tenure decisions; and sources of help most readily available to the faculty member who wishes to engage in KPU.

4. KPU process and product variables, including sources of colleagueship for faculty; and the nature and extent of the respondent's current KPU activities.

5. Impact factors, including an assessment of the impact on the respondent's SCDE of selected impact factors, and of actions taken by the SCDE in response to them.

6. Future oriented projections with respect to all of the above, with special emphasis on changes in the SCDE likely to occur as a result of the impact factors.

The faculty questionnaire was designed for direct transfer to computer tape. Returned questionnaires were edited for completeness and for self-evident errors and were immediately punched onto cards. Analyses reported in this document were carried out by computer using standard SPSS software. The data from the faculty questionnaire are presented in Chapter IV and utilized in subsequent chapters of the report.

Secondary Data Sources

Several secondary sources were used throughout the study, and each source is generally referenced or footnoted at the points in the text at which its contribution is most evident. Five sources were used so continuously, however, that they merit special mention:

1. AACTE Directory, 1975 and AACTE membership list printout for 1972-73. The AACTE data were obviously necessary since AACTE membership was employed as one criterion for the classification of institutions into RITE categories (see above). The printout was used early in the study because it provided an initial reliable source for the number of education graduates in each of some 900 programs by degree level.

2. Individual SEA lists of approved education programs. As noted earlier, the lists of approved programs by states obtained through the National Association of State Directors of Teacher Education and Certification (1973-74 List, Approved Programs) and supplemented by lists from other SEAs formed the basis for the definition of the population in the study.

3. NCATE, 21st Annual List, 1974-75. This list provided information not only about the institutions accredited by NCATE but also about the degree level of accreditation. Both items of information were important in classifying institutions into RITE categories.

4. Education Directory: Higher Education, 1974-75. This directory published by the National Center for Educational Statistics, HEW, and distributed by the U. S. Government Printing Office provided for almost all institutions in the current study information about overall enrollment, program degree levels, nature of control (public/private), and status of regional accreditation. It also provided a name, address, and telephone number of an appropriate contact person at the institution.

5. Institutional packets and catalogs. As noted earlier, a simple questionnaire was sent to all institutions identified as having SCDEs in order to verify the existence of such programs and to determine the name and address of a contact person. The letter accompanying the questionnaire also requested the respondent to mail to the investigators certain specified materials which would be useful to the RITE project, e.g., bulletins or catalogs, formal mission statements, faculty project inventories, planning documents, etc. Such items were received for about one-fifth of the institutions that comprise the population. Bulletins or catalogs for about one-half the remaining institutions were available in the bulletin collection maintained by the Indiana University Library. These materials were referred to in resolving conflicting information about institutions and for making RITE category classifications in borderline cases.

Site Visits and Other Direct Institutional Contacts

Early in the study it became apparent that a process of continuous interaction with personnel from SCDEs was essential if the inquiry were to achieve its objectives. This was true not only because the investigators did not themselves have sufficient experience with each of the many kinds of institutions involved to make reasonable judgments about what was or was not appropriate to their situations, but also because continuous interaction would have the effect of honing both concepts and instruments and thereby assure a better outcome. Three different field contacts were utilized, the first two primarily to test ideas and the last primarily to gather data.

The 1975 AACTE National Meeting. Deans, chairpersons, or other representatives from 55 SCDEs participated in a series of 90-minute sessions during the 1975 annual meeting of AACTE. These participants were scheduled into one of six groups (which were sometimes divided into sub-groups) kept as homogeneous as possible on such factors as size, degree level, and control. Five general areas were discussed with the groups, although not all areas were dealt with by each group. These included:

1. Testing various proposed definitions of knowledge production and knowledge utilization.
2. Testing the modus operandi strategy (see Chapter I) proposed for the study.
3. Testing various proposed instruments and selected items.
4. Soliciting unusual or unexpected examples of KPU activity.
5. Testing various means for collecting evidence of KPU activity, particularly in smaller, non-doctoral degree granting institutions.

Reactions obtained from these 55 respondents were influential in modifying the overall design of the study and in shaping particularly the institutional and faculty questionnaires and the productivity studies.

Preliminary Site Visits. Ten preliminary site visits were carried out in the Spring of 1975 to institutions selected chiefly to represent institutional types with which the investigators were less familiar, so as to broaden the base of project experience. The names of these ten institutions may be found in Appendix E.

The investigator adopted a very open-ended stance on these visits as a matter of policy. No interview schedules or other data collection devices were prepared in advance; in general, each preliminary visit opened with a meeting with the SCDE dean or chairperson, to whom the overall purposes of the RITE study were explained. The dean was then invited to guide the visitors to those interviews or observations which would best represent the institution's educational KPU effort and yield. Experiences during these site visits contributed to questionnaire and interview schedule items, to some early insights into the internal impact factors detailed in Chapter VII or this report, and of course to the procedures employed in the final site visits detailed below.

Final Site Visits. Twenty site visits were conducted between December, 1975, and May, 1976. The institutions were selected from among the 135 respondents to the institutional questionnaire on several criteria:

1. Representation of the RITE categories. Categories 4 and 7, masters and baccalaureate level regional campuses respectively, were eliminated from consideration because of their special nature and small numbers, but the site visit sample was selected so as to include at least two representatives from each of the remaining six categories, at least one of which was judged to be typical of the category.

2. Geographic distribution. While the investigators had no reason to suspect geographic variations in KPU activity, institutions were nevertheless selected so as to provide wide geographic sampling.

3. Unusual features. Although category representativeness was considered important, so was program uniqueness vis-a-vis KPU. Consequently, as the institutional questionnaires were processed, RITE staff paid particular attention to the information contained therein in order to identify institutions that seemed to be doing something unusual in the KPU arena. These institutions were placed into a nominations group from which the final institutions were selected.

4. Logistical feasibility. A final criterion applied was the ease of

travel and costs to possible sites. For example, if two sites were under consideration that appeared equal on other grounds, that one was chosen which reduced travel costs and staff time.

The names of the 20 institutions selected are listed in Appendix E.

Several distinct purposes were intended to be served by these site visits. These included:

1. Validation of institutional questionnaire data. There was, of course, some question about the validity of responses to the institutional questionnaire, since KPU, and particularly KP, is viewed as a high status activity in most institutions, so that one might suspect respondents of a tendency to "put their best foot forward." It seemed important therefore to utilize the site visit opportunity to test the extent to which institutional questionnaire responses actually reflected the extant situation on those campuses. The opportunity was also seized to clarify questionnaire responses that seemed ambiguous to the RITE staff, and to extend responses where it seemed useful to do so.

2. Solicitation of illustrative materials. Many of the questionnaire responses were necessarily brief, and lacked the richness of extended anecdotal material. The site visits were utilized to elicit such supportive illustrations and exemplars.

3. Initial reality testing of scenarios. Consistent with the principle of the interactive honing of concepts and instruments with field representatives, the RITE staff prepared initial forms of the scenarios that appear in Chapter VI of this report in order to test them with faculties and administrators at the visited sites. The final form of the scenarios benefitted considerably from their critique.

4. Development of new hypotheses and generalizations. Interaction with SCDEs in their own environment inevitably gives rise to a good many insights that cannot be captured by questionnaires or telephone interviews. The fact that this

technique had a rich payoff is evidenced by the existence of Chapter VII of this report; it was the site visits which generated most of the insights contained therein.

Each site visit was scheduled weeks in advance and required careful planning both on the part of RITE staff and of local contacts, typically the SCDE dean or chairperson or someone on his/her staff. The length of time involved and the size of the site visit team were determined largely by the complexity of the institution visited; at one extreme two-member teams spent one day at a site, and at the other, a five-member team spent three and one-half days.

Site visits invariably opened with a general meeting between SCDE dean/chairperson and the project team for general orientation on both sides; thereafter one member of the team remained with the dean/chairperson while the remainder of the team moved into the pre-determined interview schedule. In virtually all cases the personnel interviewed included, beside the SCDE chief administrator, the following persons or groups: other SCDE dean's office administrators (e.g., associate dean), SCDE departmental (or other unit) chairpersons, program or unit directors (e.g., director of a research bureau, curriculum development center, etc.), members of the SCDE faculty, superordinate IHE administrators to whom the SCDE administrator reported and/or who had some authority or control over SCDE programs and activities (e.g., dean of faculties, vice-president for research, graduate school dean), non-SCDE administrators (e.g., dean of the college of liberal arts, director of an IHE-wide research institute), non-SCDE faculty and department chairmen (e.g., faculty members from liberal arts departments and other professional schools, and chairpersons of such units), public school administrators and or teachers intended to represent the SCDE's "client" group (e.g., the superintendent of the local school district, teachers and administrators in local or nearby schools involved in projects with the SCDE), and graduate and undergraduate students of the SCDE. Actual interview subjects were typically designated by name and/or title by the RITE project staff after study of the institutional questionnaire and related materials. In some instances interview subjects were nominated by the SCDE administrator in response to a general description, e.g., a liberal arts department faculty member who teaches methods courses in the SCDE.

Standard interview forms were developed for each of the above types of interviews, and copies are displayed in Appendix F.[1] These forms were generally arranged to include questions on mission, organizational arrangements, KPU activities and products, and impact factors, and phrased to accomodate the perspective of the particular respondent. Questions about activities/products were recorded on a special form also included in Appendix F. The respondent was asked to rate the performance of the SCDE in each of six KPU areas in an absolute sense quantitatively, and in a relative sense in contrast to other SCDEs of this type at other IHEs as well as in contrast to other departments within this particular IHE. Each SCDE administrator was also asked a series of idiosyncratic questions designed to serve the validation and clarification/extension purposes noted above. The final 60 or 90 minutes of each visit were devoted to a group review and critique of the draft scenario that had been prepared for that institutional type; typically the SCDE chief administrator, other members of the dean's staff, and selected SCDE faculty participated. In smaller institutions, this often meant that all SCDE faculty participated in the scenario review.

Each site visit team member was responsible for preparing a written report which synthesized the field notes into a standard form covering all of the information sources. This form included the following elements:

1. Responses to the idiosyncratic questions (reported by whichever team member interviewed the SCDE chief administrator).

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[1] Interviews were instructed to deviate from the standard form if it seemed

2. Commentary on scenario subsections--changes and emendations proposed by the group (reported by whichever team member led the scenario critique session).

3. General commentary and judgmental summary. This section was subdivided into portions dealing with missions, organizational arrangements, KPU activities/products, and impact factors. The team member was expected to summarize the status of the institution as he/she understood it from her/his data sources in each of these areas, and to add whatever judgmental comments seemed appropriate.

4. Hypotheses, hunches, and generalizations. An initial list for consideration was proposed out of the investigators' general experience and from the preliminary site visit reports. Team members were expected to list any evidence either supporting or refuting items on this list, and to add other items. Thus the list of hypotheses, generalizations, and hunches grew with successive site visits, and relevant evidence was continuously gathered.

5. Special information. The team member was expected to report specifically about any KPU unit in which the administrator or staff had been interviewed, and about any ongoing KPU projects encountered in the SCDE. Other special items, e.g., political factors on a given campus that influenced KPU policy, could also be added here.

Needless to say, the richness of these data has hardly been adequately exploited in this report. Inferences from the field notes appear in most explicit form in Chapter VII, but it would be a mistake to presume that this chapter represents the only results of the site visits. On the contrary, it would be proper to assert that the general philosophic posture assumed by the investigators throughout subsequent chapters is rooted in their site visit experiences, and that the objective data reported here have been screened and interpreted in terms of understandings achieved primarily through these field interactions.

The Productivity Studies

Initially it had been the intention of the investigators to rely largely on institutional and faculty self-reports in estimating the nature of the KPU activities occuring within the several SCDEs and of the products (papers, artifacts, etc.) resulting therefrom. It became clear, however, that some objective assessment of KPU productivity was needed, and the investigators determined to under-

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useful to pursue other leads introduced by the subject.

take a series of complementary productivity studies utilizing the outlets employed by faculty in SCDEs for their KPU ventures. Additional detail about the methodology of these studies (and their results) is presented in Chapter V and hence will not be repeated here; a general description should suffice:

1. Education journal study. Twenty-six journals in educational KPU were studied over a three-year period, noting the institutional base of the author(s). Thirteen of the journals were judged to be researcher-oriented and 13 were practitioner-oriented. Journals were taken as one index of KPU productivity since they are common outlets for KPU products, particularly within the IHE culture.

2. Research in Education study. Institutional representatives participating in the AACTE national meeting interviews (see above) indicated that the study of journals alone might be prejudicial to faculty in smaller institutions, who, it was asserted, find it difficult to publish in prestige journals controlled editorally by larger, more prestigeful SCDEs. Accordingly, the investigators searched the Research in Education (RIE) file of the national ERIC system, on the assumption that almost any document is admissable through the simple expedient of submitting it to the appropriate ERIC clearing house. Two years of RIE files were searched using the computer-based Indiana University Library PROBE search mechanism, with the institutional base of the author(s) being the primary variable of concern. A 100 per cent sample of SCDE output during this period and a 20 per cent sample of all other output were utilized. Those documents originating with SCDEs were also classified as primarily oriented toward knowledge production, knowledge utilization, or both.

3. Education conventions study. The national convention programs of six major educational professional associations were studied over a three year period, with a 50 per cent sample of entries being taken. One convention was designated as primarily KP in orientation (AERA) and one as primarily KU in orientation

(AASA), while for the other four conventions individual papers were classified as either KP or KU on the basis of paper and session titles. The institutional base of the author(s) was the primary variable.

4. Books in education study. It was assumed by the investigators that the output of books in education is characteristically different from the output of scholarly papers and deserved separate study. The education books included in this analysis were any book that had been reviewed in those journals included in the journal study described above. Thus at least one editor's judgment about the importance of the book for the field of education intervened. Authorship was tabulated for three types of books: books intended as texts in SCDEs, books intended as texts in elementary and secondary schools or in IHE settings other than SCDEs, and other books, typically general commentaries. The institutional base of the author(s) was the primary variable.

5. Foundation grants study. A great deal of educational KPU is funded by foundation grants; moreover, such grants are typically made in response to proposals and hence some judgmental process on the part of the foundation staff and board is implied. Data were obtained from the Foundation Center in New York City for all educational KPU grants made over a three-year period. This list is undoubtedly incomplete because the Center must rely on voluntary input from the several foundations, and not all foundations cooperate. Nevertheless the data are useful on a relative basis. The recipient institution was the central variable of concern.

6. Government grants study. Government grants and contracts were included since, as was the case with foundation grants, some quality judgment is implied. The Smithsonian Science Information Exchange (SSIE) systematically collects data about government grants and contracts, but is reliant upon the voluntary cooperation of granting agencies so that the list is incomplete. The SSIE files were

searched for a 21-month period for records of grants or contracts in support of educational KPU. The recipient institution was the central variable of concern; however, because of the expense of SSIE computer searches, only colleges and universities were included.

7. The degree source study. While the six studies described above were all planned, the seventh study was almost literally serendipitous. An item on the faculty questionnaire inquired about the institution from which the respondent had received his highest degree. This item was originally viewed simply as a demographic datum, but later it became apparent that it could be used as a kind of productivity study in itself. It was possible, for any given institution or for any RITE category of institutions, to determine the proportion of SCDE faculty throughout the country trained therein. It was also possible to make some surmises about the contribution of each institutional type to KPU productivity by noting in what classes of institution their graduates found employment. This study is clearly qualitatively different from the other six but provides another perspective on SCDE productivity in KPU, at least for doctoral level institutions. The institutional source of highest degrees for SCDE faculty was the central variable of concern.

CHAPTER III

AN INSTITUTIONAL SELF-REPORT ON KNOWLEDGE PRODUCTION AND UTILIZATION ACTIVITIES IN SCHOOLS, COLLEGES, AND DEPARTMENTS OF EDUCATION

The data reported in this chapter are based upon an analysis of institutional questionnaires which were completed by the deans or the dean's office staff in 135 schools, colleges, and departments of education (SCDEs).[1]

Orientation to the Data

Institutional Types

Twelve institutional types were formed for use in reporting the data from this normative survey and are described in Table III-1. Three variables were employed in constructing the types, i.e., degree level offered in education (doctoral, masters, baccalaureate); institutional control (public, private); and likely involvement in educational KPU (more likely, less likely). The identification and application of the first two variables is obvious. "A" and "B" institutions are doctoral level SCDEs; "C" and "D" types are masters level institutions; "E" and "F" have baccalaureate programs in education. Each is subsequently divided into public and private groups. The final distinction is less obvious. At the doctoral level, "A" and "B" type institutions were separated on the basis of previous empirical studies of involvement in R and D activities.[2] At the masters and baccalaureate levels, the

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[1] A copy of the questionnaire and cover letter used in the survey is included as Appendix A. The procedures employed in the survey were described in Chapter II. A description of the sampling process is detailed in Appendix B.

[2] A full discussion of the RITE category system is included as Appendix C.

TABLE III-1

INSTITUTIONAL TYPES IN RELATION TO RITE CATEGORIES: NUMBER OF INSTITUTIONS BY TYPE IN POPULATION AND SAMPLE

Institutional Types	RITE Categories Included in Type[1]	Number of Institutions		Per Cent of Population in Sample
		Population[2]	Sample	
A. Res. Center Inst.				
Public	1A1	23	7	30.4
Private	2A1	11	5	45.5
B. Other Inst. for Adv. Graduate Study				
Public	1A2, 1B, 1C, 1X	89	19	21.4
Private	2A2, 2B, 2C, 2X	40	8	20.0
C. Pre/In-Service Tchr. Education Centers				
Public	3A1, 3A2, 3A3	183	25	13.7
Private	5A1, 5A2, 5A3	75	14	18.7
D. Other Pre/In-Service Tchr. Educ. Inst.				
Public	3B, 3C, 3X, 4A1-4X	101	8	7.9
Private	5B, 5C, 5X	203	7	3.5
E. Pre-Service Teacher Education Centers				
Public	6A1, 6A2, 6A3	32	6	18.8
Private	8A1, 8A2, 8A3	104	19	18.3
F. Other Pre-Service Tchr. Educ. Inst.				
Public	6B, 6C, 6X, 7A1-7X	60	6	10.0
Private	8B, 8C, 8X	446	11	2.5
	Total	1,367	135	9.9

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[1] These are the hypothetical categories. In practice some were empty sets.

[2] School year 1974-75 (approved program lists of state directors of teacher certification--in the case of Nevada which does not maintain a program approval system, the teacher education institutions listed by the SEA were included).

distinction was made on the basis of several characteristics of the institutions, i.e., involvement with the national teacher education community (accreditation by the National Council for Accreditation of Teacher Education and membership in the American Association of Colleges for Teacher Education), size of SCDE faculty, size of student enrollment in education, percentage of all students at the institution who are enrolled in degree programs in education, and certain specialized information available on the SCDEs, e.g., special purpose orientation. These data were employed to distinguish between SCDEs that appeared to have a strong programmatic commitment to teacher education and those that did not. The assumption was made that this institutional commitment to teacher education as a field of study would likely be reflected in institutional involvement in KPU. Thus, the "C" type public masters institutions were (1) more homogeneous as an SCDE type and (2) predicted to be more involved in KPU than the "D" type public masters institutions.

As can be seen from Table III-1, the 12 types were formed by grouping together 46 institutional categories that had been employed earlier in the study for sampling purposes and which constitute the RITE category system; a categorization which was designed to maximize institutional homogeneity within groups. The original category system was simply too cumbersome to retain for reporting purposes. It is, however, fully explicated for the interested reader in Appendix C.

Characteristics of the Sample

Before proceeding with a report on the results of this phase of the study, the reader should be alerted to certain characteristics of the institutional sample which affect the generalizability of the findings to the total population of SCDEs. First, the sample was not drawn to be representative of SCDEs and consequently, it is not. The focus of the study was on knowledge production and knowledge utilization (KPU)[1] activities in SCDEs not upon the instructional aspects of SCDE programs. Differential sampling was employed to concentrate on the SCDEs most likely to be involved in KPU. The results of this choice are evident in Table III-1. While 35 per cent of the "Research Center Institutions" were sampled and returned completed questionnaires, for example, data were available on only three per cent of the "Other Pre-service Teacher Education Institutions."

Second, in all of the institutional types except "A," differential sampling was applied within types. The original Research on Institutions of Teacher Education (RITE) category system mentioned earlier included institutions designated as "X," a label used for SCDEs that seemed to exhibit characteristics disabling to involvement in KPU activity, e.g., less than three F. T. E. faculty in education; an institution not accredited by its regional association to offer a baccalaureate degree; an institution with an over-riding special purpose orientation as, for instance, the case of a theological seminary; or an institution which had disavowed specifically any interest in KPU in a preliminary questionnaire distributed by the RITE project. None of these "X" institutions was sampled but in some categories, e.g., "F-Private," they were numerous. For the purpose of drawing a sample of SCDEs which had some likelihood of involvement in KPU activities, this approach represented an efficient use of limited resources but it does not allow the investigators or the reader to infer that the population of type "B-F" institutions is represented by the institutional questionnaire data.[1] These data represent the best construction that can be placed on KPU involvement by the SCDE types. The least promising sites are not represented at all (type "X") and less promising sites are systematically under-represented.

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[1] There is no generally satisfactory solution to the problem of defining KPU. Using a definition by exclusion, the deans were asked to concentrate on the functions and activities of faculty members when they were not engaged in regularized teaching programs of the SCDE. KPU activities were described in general as including research, development, evaluation, special training, and field service activities. These terms were further subdivided into 13 faculty or program activities which are specified later in this chapter on pp. 18 and 20 and in Table III-7.

Third, in several of the institutional sub-types ("A-Private," "B-Private," "E-Public," etc.) the total number of institutions in the sample is small, i.e., five to eight. This is typical of normative research studies in which the primary sampling unit is an institution; but nonetheless in such instances the impact of the response from one institution on the characterization of an institutional type provokes variations of from four per cent to 20 per cent. This problem is troublesome even in such groups as the "A-Privates" where 45 per cent of all the available SCDEs were sampled.

Finally, as noted earlier, the investigators decided to regroup institutions from the original RITE category system for clarity and ease of presentation and to avoid sub-categories in the original system with fewer than five respondents. This decision posed a technical difficulty in "Type B" institutions since differential sampling procedures had been used in selecting institutions across the original categories labeled (1A2 and 1B/1C) and (2A2 and 2B/2C). Twenty per cent of the institutions designated A2 were sampled against 10 per cent of those designated B/C. Consideration was given to weighting the responses of the B/C institutions in aggregating the data and a trial run was made on changes this would effect in the new institutional types. The changes were minor and the conclusion was reached that the best technique was the simplest: summarize the types as the institutions responded. The error should be consistent with the general conceptual scheme of the sampling, i.e., attempt to find SCDEs in which KPU activity is most likely to be prevalent. In reporting the data, the investigators have paid special attention to the sub-divisions of the original RITE category system and have noted for the reader any sharp differences found in these sub-divisions.[1] In instances where important quantitative projections from the data to the total population of SCDEs were made, e.g., in the case of the population of professors in SCDEs, corrections have been made to account for the difference between the sampling technique and the final institutional types.

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[1] This caveat does not apply to the "Type A" institutions since they all had likelihood of KPU activity by definition and were selected randomly following the sampling rules described in Appendix B.

To summarize briefly, the reader should be cognizant of the facts that:

1. This study was designed to search out KPU activity in SCDEs, not to survey a representative sample of SCDEs.
2. Consequently, in all institutional types except "A," SCDEs likely to be active in KPU are over-represented.
3. Despite efforts to include a large number of SCDEs in the study, some types are represented by relatively small numbers of institutions--obviously increasing the likelihood of error in typifying the institutional type.

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[1] The original RITE category system was retained by the staff for all data aggregation and analysis. If readers are interested in sub-category breakdowns on any of the variables in the study, tables will be made available on request.

In the remaining sections of this chapter, the data will be presented following the sequential organizational analysis pattern described in Chapter II, i.e., missions, organizational arrangements, and activities and products. The immediate next section, however, will treat some of the gross demographic characteristics of the population and sample of SCDEs.

General Demographic Characteristics

On three gross variables, data were available from secondary sources on the total population of SCDEs as well as the sample institutions, i.e.,

1. Institutional enrollment.
2. Membership in the American Association of Colleges for Teacher Education (AACTE).
3. Accreditation by the National Council for Accreditation of Teacher Education (NCATE).

These data are displayed in Table III-2. A few comments are in order about differences between the sample institutions and the population:

1. The "F-Private" institutions in the sample are much larger in size than their population group. This was predictable since non-accredited institutions, institutions with fewer than three F. T. E. education faculty, and special purpose colleges were eliminated from the sample. All of these groups had small institutional enrollments.

2. In institutional types "B," "D," and "F" the sample institutions were more likely to be AACTE members than was true in the general population. This, again, was predictable since (a) "X" type institutions were not sampled (few of the "X's" were AACTE members), and (b) in type "B" institutions the 1A2 and 2A2 component groups were over-sampled and were more likely to be AACTE members.

TABLE III-2

DEMOGRAPHIC CHARACTERISTICS OF ALL SCDEs IN STUDY SAMPLE BY INSTITUTIONAL TYPE

Type	Control	Median Institutional Enrollment[1]		Per Cent Maintaining AACTE Membership[2]		Per Cent Accredited by NCATE[3]			
						Population		Sample	
		Population	Sample	Population	Sample	At Some Level	At Highest Degree	At Some Level	At Highest Degree
A	Public	31,500	35,045	91.3	100.0	91.3	91.3	100.0	100.0
	Private	14,165	17,500	81.8	100.0	90.9	90.9	100.0	100.0
B	Public	15,900	17,500	96.6	100.0	87.6	66.3	89.5	79.0
	Private	8,235	10,000	65.0	87.5	52.5	35.0	62.5	50.0
C	Public	6,835	6,563	98.9	100.0	94.0	72.1	92.0	64.0
	Private	2,354	2,400	97.3	92.9	93.3	52.0	92.9	50.0
D	Public	4,118	5,000	54.5	87.5	8.9	5.0	12.5	12.5
	Private	1,530	1,875	32.0	71.4	2.0	1.5	14.3	0.0
E	Public	2,084	2,000	100.0	100.0	93.8	93.8	100.0	100.0
	Private	1,104	975	100.0	100.0	97.1	97.1	89.5	89.5
F	Public	2,500	1,600	51.7	100.0	13.3	13.3	50.0	50.0
	Private	847	1,300	37.0	90.9	1.6	1.6	0.0	0.0

[1] School year 1974-75 (Education Directory: Higher Education, 1974-75)
[2] School year 1974-75 (AACTE Directory, 1975)
[3] School year 1974-75 (NCATE, 21st Annual List, 1974-75)

3. The same phenomenon is apparent in the over-representation of NCATE accredited institutions in Types "B," "D," and "F." In each of these instances, "X" level institutions in the original RITE classification system were excluded systematically and none of those institutions were accredited by NCATE.

Let us turn back, then, to the demographic data available on the overall population of SCDEs.

Institutional Enrollment

The most interesting observation that can be derived from the enrollment data is the incredible diversity of training sites for teacher education. From the largest public doctoral institutions to the smallest liberal arts colleges in the country, there are state accredited pre-service teacher preparation programs in profusion. This diversity presents a special problem to the policy planner since it eliminates the possibility of treating SCDEs as a homogeneous group in regard to which a general policy would be germane. Quite to the contrary, SCDEs are maintained in 72 per cent of all four year institutions of higher education.[1] They are to be found not only in research center sites with the faculty and resources available in such locations, and among the high prestige liberal arts institutions in the country, but in 93 sites where the general quality of the institution is such that the institution is not able to qualify for regional accreditation. The diversity is illustrated in gross fashion by the median student enrollment in the "A-Publics" (31,500) and in the "F-Privates" (847). It is hard to imagine a policy relating to SCDEs which would not impact differentially on such groups.

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[1] Based on 1,887 four year colleges and universities for 1974-75 as reported in, Yearbook of Higher Education 1975-76 (Marquis Academic Media: Chicago) 1975, p. 671.

AACTE Membership

The percentage of SCDE membership in the single, comprehensive organization representing teacher education at the national level is a function both of the degree level maintained by the institution in teacher education and the type of control, i.e., public vs. private. This phenomenon is illustrated in Table III-3.

TABLE III-3

PERCENTAGE OF SCDE MEMBERSHIP IN AACTE BY DEGREE LEVEL IN EDUCATION AND TYPE OF CONTROL

Degree Level in Education	Type of Control	
	Public	Private
Doctoral	95.5	68.6
Masters	82.7	49.6
Baccalaureate	68.5	48.5

Almost all public institutions operating programs beyond the baccalaureate level maintain membership in AACTE. Even at the doctoral level, however, only about two-thirds of the privates are AACTE members, almost identical to the percentage of public baccalaureate institutions that maintain membership. Although a very large number of AACTE members are small private baccalaureate level institutions (since these are the single largest subgroup of SCDEs), the Association represents less than half of the population of these SCDEs. Overall, 62 per cent of the SCDEs are AACTE members. Three inferences might be drawn from these data:

1. To the extent that AACTE is influential in representing the interests of the teacher education community, public institutions and private

doctoral level institutions are over-represented in AACTE in their influence on the community.

2. To the extent that AACTE can either improve the level of performance in its member institutions or exercise quality control on teacher education, a significant number of institutions is impervious to this influence.

3. To the extent that AACTE is used by policy planners as the sole source for input in assessing the influence of alternative policies on SCDEs, those planners will not account for a significant portion of the affected population.

NCATE Accreditation

A considerably smaller percentage of SCDEs are NCATE accredited than are AACTE members. But the pattern of accreditation is, similarly, a joint function of degree level and control as illustrated in Table III-4.

TABLE III-4

PER CENT OF SCDEs HOLDING NCATE ACCREDITATION BY DEGREE LEVEL IN EDUCATION AND TYPE OF CONTROL

Degree Level in Education	Per Cent with NCATE Accreditation at Some Level		Per Cent with NCATE Accreditation at Highest Degree Level	
	Public	Private	Public	Private
Doctoral	88.4	60.8	71.4	47.1
Masters	63.7	26.6	48.2	15.1
Baccalaureate	41.3	19.6	41.3	19.6

Voluntary national accreditation in teacher education is a phenomenon of the public institution. Among the doctoral level institutions, fewer than one-half the privates held accreditation at the doctoral level; fewer than one-fifth of the masters and baccalaureate private institutions were accredited by NCATE at their highest degree level. To note that 39 per cent of all SCDEs are NCATE accredited institutions at some level or that 31 per cent are accredited at their highest degree level is to communicate little or nothing about the actual pattern of national voluntary accreditation in teacher education. The institutional types in the field vary from a low of 19.6 per cent accredited institutions to a high of 88.4 per cent. Using even the slightly more homogeneous groupings employed in Table III-4, these data suggest that:

1. To the extent that a major purpose of national voluntary accreditation is viewed as the enforcement of minimal standards it would appear not to be working. The least able institutions in the field, those without accreditation as baccalaureate institutions, are operating state approved programs entirely without reference to NCATE. If the assumption is made that larger institutions with higher degree levels and more resources are least likely to be operating minimal programs, these are the institutions being accredited almost uniformly by NCATE. The smaller institutions, some of which appear to have little commitment to teacher education other than offering courses needed for certification, are not being rejected by NCATE; they are simply not playing the game. But, of course, they too are operating state approved programs in teacher education. When the norm for a group is non-participation (over 80 per cent), the penalties attached to out-group status may be considered to be inconsequential.

2. Since there is no obvious reason to suspect across-the-board qualitative differences between the public and private SCDEs, the markedly different level of participation by these institutions in a national voluntary accreditation program would seem to indicate that the present system, if it is important to the development of the field, is not working.

3. If accreditation of professional training is important, teacher education as a whole is missing its benefits. Teachers are still being prepared in institutions which are not only not NCATE accredited but are not regionally accredited as colleges.

Numbers of Education Graduates

Table III-5 presents details on the size of education programs and faculties for the sample institutions.[1] Even a cursory glance illustrates that (1) the bulk of the graduates in education are produced in the public institutions, and (2) the largest producers of pre-service teachers are the institutions at which the degree level in education is the highest. Consequently, the proportion of teachers prepared at AACTE--NCATE institutions is much higher than the percentages in Tables III-3 and III-4 would have suggested.

There are some institutional characteristics of interest signaled by these data on program and faculty size:

1. Centers for graduate study in education are not isolated from large programs of pre-service teacher preparation: to the contrary, research center institutions ("A-Public" and "A-Private") operated larger pre-service programs than their doctoral level counterparts ("B-Public" and "B-Private"). Moreover, the public research center institutions were the largest producers of pre-service teachers among the institutional types.[2]

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[1] The reader should note that the data in the remainder of this paper are based not upon the 1,367 SCDEs in the population but the 135 SCDEs in the institutional questionnaire sample.

[2] This was not literally true in the original RITE category system since an artificial group of "super-producers" was created in RITE-category three, i.e., 3A1--producers of more than 1,000 education graduates per year. That sub-group of six institutions produced a median of 1,114 graduates at the baccalaureate level during 1974-75.

TABLE III-5

NUMBER OF EDUCATION GRADUATES AND SIZE OF FULL TIME EDUCATION FACULTY IN 135 SAMPLE SCDEs

Type	Control	Median Number of Education Graduates, 1974-75 Per Institution in Category				Median Number of Regular Full Time Faculty	Graduates in Education Per Faculty Member
		Baccalaureate	Masters	Doctoral	Total		
A	Public	963	450	113	1526	113	13.5
	Private	150	350	35	535	63	8.5
B	Public	550	275	32	857	113	7.6
	Private	75	100	30	205	27	7.6
C	Public	456	173	-	629	47	13.4
	Private	100	75	-	175	15	11.7
D	Public	334	150	-	484	30	16.1
	Private	75	50	-	125	7	17.9
E	Public	200	-	-	200	13	15.4
	Private	78	-	-	78	5	15.6
F	Public	100	-	-	100	8	12.5
	Private	68	-	-	68	5	13.6

2. The inverse proposition is not true, i.e., that institutions without programs of advanced graduate study are not large producers of teachers. In fact, eight institutions in the sample outside the "A-Public " produced over 1,000 initially certified baccalaureate graduates in 1974-75. It is true, however, that the concentration of students in pre-service preparation programs by institutional type is dramatic. Only one institution outside Type "A," "B-Public," and "C-Public" had as many as 400 graduates in 1974-75.

3. The research center institutions also operate extensive masters level training programs in education. Outside the doctoral institutions, it is also evident that the public universities produce the bulk of the masters degrees in the field.

4. The bulk of the productivity of doctoral students in education is concentrated in the "A-Public" and "B-Public" institutional types. The former produced circa 2,600 new doctorates in 1975. The latter (in which the larger institutions were over-represented) would have been projected on the basis of these data to have produced circa 2,850.[1] In

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[1] This might be a good point at which to illustrate how combining the original categories and over-sampling most likely KPU sites affect the use of these study data for generalizing to the total population of SCDEs. In the "B-Public" institutional type there are 89 SCDEs. If one simply took the median doctoral graduates in the type and multiplied by the number of institutions (89 X 32), the total projected doctoral graduates for the "B-Public" category would be 2,848. But, in fact, the original sampling subdivided the type into 1A2 institutions (of which there were 61) and 1B/C institutions (of which there were 28). The former produced a median of 38 doctoral graduates in 1974-75; the latter only 13. Had the data remained disaggregated the estimate of doctoral graduates would have been (61 X 38 + 28 X 13) or 2,318 + 364, i.e., 2,682. In fact, however, the question of estimating doctoral graduates is academic since a perfectly valid estimate of doctoral productivity in education is available regularly from the National Research Council's yearly summary report, Doctorate Recipients From United States Universities. In the 1975 NRC report issued in May, 1976 by the National Academy of Sciences, the total number of education doctorates for 1975 was reported as 7,349 (p. 13). The uncorrected projection from this study would have estimated 7,032. The

contrast, the "A-Private" type would have been predicted to have produced 385 and the "B-Private" circa 1,200.

Size of Education Faculties

Most professors of education (68.6 per cent) are concentrated in public doctoral and masters level institutions, i.e., types "A-Public," "B-Public," and "C-Public." Table III-6 presents an estimate of the population of regular full time faculty in SCDEs arrived at in column one by simply multiplying the median faculty in the institutional type by the number of total institutions in the category, and corrected in column two by disaggregating the data, as illustrated in the immediately preceeding footnote, and computing the projections on the basis of the original sampling plan and the RITE categories. Assuming that people are key KPU resources, several observations are in order in regard to Tables III-5 and III-6.

1. Modifications in KPU policy which affect graduate level public institutions are most likely to provoke the greatest changes in KPU productivity because of the concentration of personnel in these sites. This is not to argue that the relative current KPU productivity in these sites is high (a matter which will be addressed in a later chapter) or the desirability of supporting KPU activity in any or all other sites but simply to note the quantitative point of impact identified by current demographic data.

2. A peculiar anomaly exists in the "A-Public" institutions. The size of their faculties in relation to the number of education graduates is smaller than any of the other doctoral level institutional types. An

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NRC data, however, includes all doctorates in education and the RITE project data excluded some professional degrees offered in non-SCDE professional schools, e.g., music, agriculture, physical education.

TABLE III-6

ESTIMATED NUMBER OF REGULAR FULL TIME FACULTY IN SCDEs

Type	Control	Uncorrected Number by Type (Median X Number of Institutions)	Number by Type[1]
A	Public	2599	2599
	Private	693	693
B	Public	10057	8781
	Private	1080	875
C	Public	8601	11841[2]
	Private	1125	1150
D	Public	3030	3210
	Private	1421	1353
E	Public	416	365
	Private	520	545
F	Public	480	442
	Private	2230	1987
	Total	32252	33841

[1] The only source of significant error in these estimates is among the unsampled "X" institutions where a constant figure of five faculty members was used for doctoral and masters level institutions and two for baccalaureate level colleges. The number of "X" cases by type were public doctoral--0; private doctoral--10; public masters--10; private masters--34; public baccalaureate--six; private baccalaureate--81.

[2] This apparently surprising increase over the aggregated estimate is easily explainable when the category is examined. This category includes the original RITE 3A1 institutions, i.e., those with education graduates exceeding 1,000 per year. Fifty-four public masters universities met this criterion. Their median faculty size was very large (120 in the six sample institutions) but was depressed in significance when they were combined with the 3A2 and 3A3 universities to form the "C-Public" type.

observer might well have anticipated that both the "A-Public and Private" institutions would have maintained lower ratios of faculty to students than their doctoral counterparts in the "B" type since research center institutions should find it necessary to allocate faculty time to their more extensive KPU commitments.

3. Future SCDE faculty resources for KPU are concentrated even more heavily than current SCDE faculty. Of the circa 7,000 doctoral graduates estimated to have been produced in 1975, 5,280 or 75 per cent were produced in the public doctoral categories. Again, failure to attend to KPU productivity in these sites could have a major long range effect on the quality of productivity in the field.

4. There is a large number of SCDE faculty (51.9 per cent of the total) located in graduate level institutions which do not offer the doctorate. These sites would normally not be expected to be locations in which KP productivity was central to the life of the professor but they do have constant contacts with teachers in the field through their masters level in-service programs. They may represent a significant resource for KU involvement of SCDEs as a national policy consideration.

Institutional Missions in KPU

Emphases Placed on KPU Activities

The perceptions held by the deans of the responding institutions in terms of the emphasis placed on various KPU activities in their SCDEs is portrayed in Table III-7. To assist the reader in understanding the columns in the table, the following definitions are repeated as they were used in the institutional questionnaire:

1. Development--developing generalizable educational products, e.g., texts, other curricular materials.

TABLE III-7

RATINGS BY DEANS OF THE EMPHASIS PLACED ON KPU ACTIVITIES IN SCDEs BY INSTITUTIONAL TYPE

Type	Control	Depiction of Emphasis on KPU Activities												
		Develop-ment	Product Testing	Dissemi-nation	Effecting Change in Schools	Evalua-tion	Basic Research	Applied Research	In-service Programs	Social Book-keeping	Individual Consul-tancies	Field Service Projects	Demon-stration	Servicing Programs
A	Public	+	+	+	Central	+	+	Central*	+	+	-	+	+	+
	Private	+	+	-	+	+	Central*	Central	-	-	-	-	-	-
B	Public	+	+	+	Central*	+	+	+	Central*	+	+	Central*	+	+
	Private	-	-	-	+	+	+	+	+*	-	+	+*	+	+
C	Public	-	-	+	Central*	+	+	+	Central	-	+	+	+	+
	Private	-	-	+	+	-	+	+*	+*	-	-	+	+	+
D	Public	-	-	+	+	+	+	+	Central*	+	-	+	+	+
	Private	-	-	+	Central*	+	+	+	+	-	-	-	+	-
E	Public	-	-	+	+*	+	+	+	+*	-	-	+*	+	-
	Private	-	-	+	+*	+	+	+	+	-	-	-	+	+
F	Public	-	-	-	+	+	-	+	+*	-	+	+	+*	+
	Private	-	-	+	+*	+	+	+	-	-	+	-	+	+

Table Code: Central--Mean category response of 3.5 + on a four point scale
+ --Mean category response of 2.5-3.49 on a four point scale (of some interest to the SCDE)
- --Mean category response of 0 -2.49 on a four point scale (of little or no interest to the SCDE)
* --Activity rated highest by SCDE category

2. Product Testing--testing and evaluating generalizable educational products and services.

3. Dissemination--disseminating information about educational innovations.

4. Effecting Change in Schools--effecting change in elementary and secondary schools.

5. Evaluation--evaluating school practices.

6. Basic Research--producing basic knowledge about education.

7. Applied Research--producing applied knowledge about education.

8. In-service Programs--conducting in-service projects and programs for school personnel (excluding regular advanced degree programs).

9. Social Bookkeeping--maintaining a data base for and about education.

10. Individual Consultancies--providing individually negotiated consultant assistance.

11. Field Service Projects--conducting field service projects with schools.

12. Demonstration--demonstrating new practices and innovations.

13. Servicing Programs--servicing and nurturing new programs that have been installed in schools.

Some pre-conceived guesses of the authors were reinforced by the respondents. The research center institutions were the only SCDEs that indicated that basic and/or applied research were central missions. The private research center institutions were equally sharp in distinguishing between KP and KU. Their concentration was on the former and the latter appeared to be of little or no interest.

The "B-Public" institutions responded much as would have been predicted in choosing KU activities as central to their concern, i.e., effecting change, in-service programs, field service projects. Their counterpart private institutions were much less clear in mission delineation: although the highest rated missions in this group fell in the field-based category, as a group they identified no mission area as "central."

Below the doctoral categories, in-service programs and effecting change in schools were the only categories noted as central and, for the most part, constituted the highest ranked categories. As might have been predicted, none of the baccalaureate level institutional types identified any of these activities as central. They were not provided with the option of specifying teaching as their central activity but were forced to choose from among KPU activities.

One option provided to the respondents, "effecting change in schools," seems to have been interpreted as a catch-all category in which it would be inappropriate to exhibit little or no interest. The intent of the instrument was to pick up systematic change efforts directed toward schools but, instead, the category seems to have been used by institutions which had responded to few other items.

There are some interesting observations to be made about the activities across institutional types:

1. The "D" portion of educational R and D is left entirely to the doctoral institutions but is not rated as central by any of those groups.

2. With a single exception ("F-Public") basic and applied research is noted as "of some interest" to all the SCDE categories. Already computed yield studies (see Chapter V) have revealed a wide discrepancy in KP productivity, approaching zero in the pre-service institutions. A persistent mythology in the field of education seems to be that everyone is or should be involved in knowledge production activities. Research

is a high status activity in institutions of higher education. But the consequence of institutional mission commitments to high status activities which are not in fact being pursued should be substantial organizational dissonance and dissatisfaction.

3. Institutions of different types portray varying levels of confidence in their missions. The "A-Private" category, for example, clearly dichotomized their responses between KP and KU with a strong commitment to KP. Contrast this with the "B-Privates" or the "C-Privates"; more activity areas were noted as of interest than selected by the "A-Privates" but none were designated as of central interest. This confirms the experience of the RITE staff in its site visits which suggested that some institutions seemed to project a strong sense of purpose shared by all institutional participants while other SCDEs seemed to be groping, i.e., they were institutions in search of a mission.

Institutional Posture in Support of KPU

Table III-8 summarizes the responses of the deans when they were queried about the posture assumed by their institutions in regard to faculty involvement in KPU. There are no startling differences from what one might have expected. The deans avoid disclaiming interest in KPU. Even in the preservice institutions they selected a response that indicates approval of faculty involvement in such activities. In fact, only three of the 135 institutional respondents selected response "1" although formal mission statements returned with the questionnaire frequently employed the phraseology of this response to describe the institution's commitment to professional education.

There is an interesting distinction in Table III-8 between the public and private research center institutions which will be described in more detail in the analysis of their organizational arrangements in

TABLE III-8

TYPIFICATION BY DEANS OF INSTITUTIONAL POSTURE REGARDING FACULTY INVOLVEMENT IN KPU

Institutional Type		Category of Median Response	Institutional Type		Category of Median Response
A	Public	6	D	Public	4
	Private	5		Private	4
B	Public	5	E	Public	2
	Private	4		Private	3
C	Public	4	F	Public	3
	Private	3		Private	3

Table Code:

1--Disclaims any significant interest in or commitment to KPU activities. The institution places predominant emphasis on involvement in and successful completion of teaching responsibilities.

2--Does not emphasize such activities but encourages the faculty to carry them out on their own time and with their own resources. Does not provide, for example, load adjustments even when outside grant or contract money is involved.

3--Generally approves faculty participation in such activities and is permissive about faculty devoting some portion of their time, e.g., one day per week, to them (including outside consulting). Faculty members are nevertheless viewed as private entrepreneurs in this area.

4--Generally approves faculty participation and takes an active role in stimulating it. Faculty members are seen as institutional representatives in this area. Usually the institution will make an effort at least to keep faculty informed about funding opportunities.

5--Defines such activities as an integral part of the formal institutional mission (i.e., it *expects* faculty to participate) and defines a portion of the load of each faculty member in this area.

6--Same as above but also provides a variety of organizational arrangements to stimulate and support such activities, e.g., a bureau or center of research, an associate dean for field services, earmarked seed money to stimulate projects, etc.

support of KPU in the next section of this chapter. The "A-Privates" chose response "5" rather than "6" indicating that they did not have "a variety or organizational arrangements" to support KPU. This reinforces the often-expressed notion that the faculty in this group are recruited and selected on the basis of their KP interests, but that continuing KP productivity is supported by peer pressure and evaluation rather than by such devices as coordinators or assistant deans for research. Socialization rather than organization is the key.

This raises an interesting question about the "B-Privates," and "C-Privates." As institutional groups, they too chose median responses below their public counterparts. They may also be attempting to rely upon informal structures to acculturate faculty to KPU; structures which are less likely to be operative in these institutions. On the other hand, it may simply be that the base of financial support in these institutions is such that they cannot afford to invest in formal mechanisms for KPU. In either case, they would seem to be sub-groups worth further study for planning purposes if one is interested in increasing the number of SCDEs active in KPU.

Summary

The original conception of the study proposed a pattern of sequential organizational analysis that would begin at the level of mission, proceed to organizational arrangements, and then to activities and products in investigating KPU productivity in SCDEs. The investigators assumed that institutions would be likely to claim involvement in KPU at the mission level which would not be substantiated by queries at subsequent levels. In fact, this seems to be the case. Only three institutional respondents disclaimed institutional interest in KPU. No institutional group came close to indicating lack of interest in KPU activities. If this pattern of analysis had been viewed as a screen, one could only note that it was porous.

On the other hand, the institutional groups did sort themselves out in a relative sense on mission-level questions. Involvement of non-doctoral level institutions in development activities was nil. No group other than the doctoral institutions claimed a central commitment to research. No institution below the masters level claimed a central commitment to KU activities. The mean response of the groups on the posture of the institution toward faculty involvement in KPU was in the expected direction.

Organizational Policies and Practices in Support of KPU

Organizational Agents and Agencies in Support of KPU

In Table III-9, the institutional types are characterized in terms of their use of such organizational agencies and agents as bureaus or institutes, coordinators of KPU, faculty committees for KPU, laboratory or demonstration schools, in-house journals, research foundations, grant and contract officers, and grant dissemination systems to stimulate, coordinate, and support faculty involvement in KPU. These organizational practices will be considered singly in the text which follows:

KPU Bureaus and Centers. The R and D center or field service bureau is an almost universal organizational feature of the research center institution. Eleven of the 12 institutions (public and private) reported maintaining such units and the usual pattern was several bureaus organized around substantive specializations. In the non-research center doctoral institutions, 21 of 27 maintain one or more bureaus or centers and all 15

TABLE III-9

FORMAL ORGANIZATIONAL AGENTS AND AGENCIES IN SUPPORT OF KPU IN SCDEs

Type	Control	Characterization of Practice by Institutional Type							
		SCDE Level					University Level		
		Bureaus or Institutes	Coordinators of Research	Faculty Committees	Laboratory School	In-house Journal	Research Foundation	Contract Officer	Grant Dissemination System
A	Public	1	1	2	5	3	2	1	2
	Private	2	3	4	5	4	3	1	2
B	Public	2	2	3	5	4	4	1	2
	Private	2	4	5	5	4	4	2	2
C	Public	3	3	5	4	5	5	2	3
	Private	5	5	5	5	6	6	3	4
D	Public	6	5	4	6	6	4	2	3
	Private	6	6	5	5	6	5	3	3
E	Public	6	5	5	6	6	6	3	3
	Private	6	6	5	5	5	6	4	3
F	Public	3	5	5	6	6	6	5	5
	Private	5	6	5	6	6	5	2	4

Table Code:
1--Always or almost always (90-100 per cent)
2--Frequent (65-89 per cent)
3--More typical (50-64 per cent)
4--Less typical (35-49 per cent)
5--Infrequent (10-34 per cent)
6--Never or almost never (0-9 per cent)

of the original RITE category 1A2 universities[1] operate such centers. The use of this organizational arrangement tails off dramatically in other institutional groups. Fifteen of the 25 "C-Publics" had such bureaus (more typically field service than research bureaus) but among all other institutions in the sample only nine such units were reported. A KPU bureau is a very specific signal of institutional commitment of time and resources to KPU in education and an almost universal device employed by the institutions that one would predict are most involved in these activities.

Coordinators of KPU Activity. At the SCDE-level, one device that can be used to encourage or support faculty involvement in KPU is the coordinator, assistant dean, or assistant department chairman for research or field service. All public research center institutions reported such individuals, usually 1.0--2.0 F. T. E. released for the purpose. This arrangement is frequently employed in the "B-Publics" (17 of 19) and is not unusual in the "C-Publics" (13 of 25). It is the first of the organizational arrangements which distinguishes the private vs. public approach to the support of faculty KPU. The private doctoral institutions report such released time in only six of 13 instances and even the research center institutions employ it in only three of five instances. Institutions other than the doctoral level group and "C-Publics" almost never released personnel within the SCDE for such purposes--only 10 reported such a practice.

Faculty Committees for KPU. Faculty R and D or service committees displayed a different and interesting pattern among the institutional types. They were frequent in the "A-Publics" (five of seven), typical of the "B-Publics" (12 of 19) but infrequent in the doctoral privates (only three of 13). The interesting exception is that although faculty committees are infrequently found in other institutional types, their frequency is considerably higher (17) than either bureaus or released KPU personnel at the SCDE level. With the exception of the "A-Publics" and "B-Publics," it would not have been possible to distinguish among the institutional types in the sample with any clarity using this variable. And, of course, this is the first of the noted organizational features which represents no direct institutional cost. The use of such a low cost device is consistent with the earlier-noted mission aspirations of institutional types that have not typically been involved heavily in KPU and do not have institutional resources available to support such aspirations.

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[1] This was the sub-category within the other doctoral institutions which seemed on the basis of overall SCDE characteristics to be most likely involved in KPU activities.

Laboratory and Demonstration Schools. Although defined on an a priori basis as an organizational arrangement in support of KPU, the laboratory school appeared so infrequently in the sample institutions that the best summary observation one can make is to note that they are not employed currently as KPU organizational arrangements. Laboratory schools appear most frequently in the "C-Public" group (12 of 25). Only three of the 12 research center institutions reported such agencies. Laboratory schools seem to be more closely associated with major commitments to instruction in teacher education than to KPU. In addition to the "C-Publics," there were four of 14 in the "C-Privates" and five of 19 in the "E-Privates." In contrast, the "D-Publics" had none; the "D-Privates" one of seven; and the "F-Privates" one of 11. Although it is not possible to differentiate KPU involvement on the basis of such units, it is possible to differentiate teacher training commitment in what has been termed in this study, teacher center institutions, contrasting them with other institutions in the same degree level category.

In-house Journals. Reporting institutions were queried as to whether they maintained an in-house journal, newsletter, or occasional paper series in which faculty published regularly. This arrangement is not frequently maintained by SCDEs (only 27 institutions in all reported such an arrangement) but where it appeared it was clustered in the graduate level institutions. The research center institutions accounted for six of the 27. The remaining doctoral institutions reported 10. Six of the remaining 11 were in the "C-Public" group. This fitted the prediction most persons would have made that such publications would be found in SCDEs which (1) are most likely involved in KP activity and (2) are most likely to insist upon faculty productivity in publication as a basis for promotion and tenure.

University-level Agencies for KPU. Arrangements to support faculty involvement in KPU can be organized at the college or university level as well as within the SCDE. A formally organized research foundation, for example, is frequently maintained to support the involvement of all faculty in KPU. Such an arrangement was reported by 34 of the 135 sample institutions. As might be expected, such devices were concentrated in the doctoral level institutions (19) with eight of the other 15 being found in the "C-Public" category. Since such foundations are concerned with KPU productivity in all fields at the college or university, these data speak obscurely to the emphasis of institutions on KPU in education. They do indicate, however, that large categories of SCDEs might confront substantial logistical difficulties in pursuing or handling grant and contract activity in support of KPU if it became available.

This point was substantiated further when the respondents were asked whether or not there was a designated university official to coordinate grant and contract activity. As might have been anticipated, this is standard practice in the doctoral level institutions (38 of 39). It is common practice, although not uniform, in the "C" institutions (29 of 39). But in the other categories, such an arrangement is not uniform, i.e., "D"--10 of 15, "E" 12 of 25, "F-Public" two of six, "F-Private" nine of 11. Since designated responsibility to some individual at the college or university level is probably the minimum arrangement that one would expect in support of KPU, it would appear that in a number of institutions the question of external grant and contract support across campus, not restricted to education, arises so infrequently that such a designation is unnecessary. Although this variable is so common in its appearance that it does not seem to distinguish particularly well across institutional types, it is probably a prima facie disclaimer of involvement in KPU if it is missing in a given institution.

Universities can also maintain a regularized system for distributing information about external funds available to support KPU activities. In the RITE staff preliminary site visits to 10 institutions, the staff noticed that even in institutions that had little KPU activity underway there seemed to be dissemination mechanisms to alert faculty to grant and contract opportunities. The institutional questionnaire confirmed this observation. In all institutional types except the "C-Privates" and "F's" a majority of institutions maintained such a system. With the exception of a designated contract officer for grants and contracts, the most frequently reported arrangement in support of KPU is the dissemination system about available external funds. This is, of course, a low cost institutional response mode for KPU. Questions might well be raised about its organizational efficacy if it is not accompanied by some other techniques for faculty support. This may fit in the earlier-noted category of stimulating or encouraging aspirations in KPU which do not fit the capacity of the SCDE or the ability of the institution to support KPU.

Personnel Policies and Practices Related to KPU

Faculty recruitment, evaluation, and load policies and practices are surely related to the seriousness with which an institution is pursuing any given institutional mission. Table III-10 summarizes the responses of the deans to these items on the institutional questionnaire.

Faculty Load. No items distinguish as sharply between the doctoral level institutions and all other institutions in regard to arrangements to support KPU as the questions on faculty load. With the exception of the "D" institutions, the median response of all other institutional types to the question of how much time is built into the faculty member's regular load to pursue KPU activities was "none." In contrast, the doctoral level institutions typically allocate *circa* 25 per cent of a faculty member's time for these activities. These data were affirmed by the responses to the question regarding semester hours assigned to teaching. The lowest median teaching load outside the doctoral group was 12 hours per semester, a load which most persons would classify as full time college and university level teaching. There are some particular observations worth noting on these questions:

1. The research center institutions are distinguishable from all their counterparts on the basis of load. Eleven of the 12 reported a minimum of 20 per cent of a faculty member's time allocated for KPU activity and backed this up with median teaching loads of 8.6 and 8.5

TABLE III-10

SCDE PRACTICES IN FACULTY LOAD, EVALUATION, AND RECRUITMENT WHICH MIGHT AFFECT KPU

Type	Control	Faculty Load			Faculty Evaluation		Faculty Recruitment					
		Median by Type			Characterization		Characterization of Emphases[2]					
		% of Time Allocated for KPU	% of Time for Individual Consulting	Semester Hours Assigned to Teaching	Use of only teaching or teaching and service as criteria for[1]		Prior Publications		Graduate Level R and D Training		Success in School Settings	
					Promotion	Tenure	Essential	Not Important	Essential	Not Important	Essential	Not Important
A	Public	29	23	8.6	6	6	4	6	5	6	5	5
	Private	28	24	8.5	6	5	5	6	2	6	4	6
B	Public	21	23	12.2	6	6	5	6	4	6	3	5
	Private	23	23	10.5	6	6	4	6	5	5	3	6
C	Public	None	15	13.2	5	5	6	5	5	6	2	6
	Private	None	11	12.8	5	5	6	5	5	4	2	6
D	Public	15	16	12.0	5	5	5	6	5	5	1	6
	Private	15	21	13.1	4	4	6	5	5	5	2	6
E	Public	None	None	14.3	3	2	6	5	6	2	1	6
	Private	None	5	14.0	3	3	6	5	6	5	1	6
F	Public	None	17	13.5	3	3	6	5	6	6	2	6
	Private	None	None	13.7	5	4	6	6	6	5	1	6

[1] Respondents could check all three criteria as used for promotion and tenure decisions and obviously did just that with high frequency.

[2] An intermediate response "helpful" was available to the respondents. It is not included in the characterization.

Table Code:
1--Always or almost always (90-100 per cent)
2--Frequent (65-89 per cent)
3--More typical (50-64 per cent)
4--Less typical (35-49 per cent)
5--Infrequent (10-34 per cent)
6--Never or almost never (0-9 per cent)

hours per semester for publics and privates respectively. Only two of the 12 research center institutions reported teaching loads of 12 hours per semester.

2. Other doctoral institutions maintained a somewhat different definition of what constitutes a full time load. Although they reported a median 20-25 per cent of a faculty member's time released for KPU activity, 12 of the 27 also reported 12 hour teaching loads, and all but two reported nine plus hour teaching loads. The "B-Publics," for example, designated 20 per cent plus released time for both KPU and individual consulting while 10 of 19 reported teaching loads of 12 plus hours and the remaining nine of nine plus hours.

3. In all other institutional types, the modal teaching load was 12-14 hours per semester. With the exception of the "C-Publics," the total number reporting loads of 15 plus hours (12 institutions) exceeded those reporting less than 12 hours (nine institutions). The typical situation outside the doctoral level group was a 12 hour plus teaching load with institutionalized sanction to use not more than a day a week for individual consultative activity. In these institutions, the pursuit of KPU as a part of the faculty member's regularly assigned load is really not an operative policy or practice.

Faculty Evaluation. The evidence in regard to faculty evaluation policies and practices *vis-a-vis* KPU is not nearly so clear as the evidence on faculty load. Ninety-three of the 135 reporting institutions claimed that teaching, research, and service were all employed as criteria for granting promotion to faculty and 87 of the 135 asserted they were all employed in making tenure decisions. Institutional types are nevertheless still distinguishable by analyzing the small number of institutions that indicated promotion and tenure were based on teaching alone or teaching plus service. In the doctoral level institutions, for example, all institutions indicated that the three criteria were used for promotion while among all pre-service institutions 18 of 42 indicated that promotion could be obtained on the basis of teaching alone or teaching plus service.[1]

The most dramatic observation to be made in regard to faculty evaluation, however, is not what the institutions indicated were the criteria for evaluation but rather how the criteria which were employed fitted with (or in this case did not fit with) the institutional load assignment to the faculty member. All doctoral level institutions indicated that they employed the three criteria of teaching, research, and service in evaluating faculty for promotion. But 10 of the 39 reported that no time was built into the faculty member's regular workload for KPU activities. The only exception was the research center institutions in which only one SCDE reported no provision for faculty time for KPU activity. The fit between evaluation and assignment is much less consistent in other institutional types. The "C-Publics" in 20 of 25 cases reported that all three criteria or teaching plus research were used in evaluating faculty for promotion, but 19 of the 25 reported no time allocated for KPU activity. At the other extreme, the "E-Privates," where teaching is usually considered the highest priority faculty activity, reported in seven of 19 cases that all three criteria were used for promotion while only one reported that some provision was built into faculty workload for KPU; and as is evident in Table III-10, the median teaching load in such institutions is 14 hours per semester.

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[1] Service, which may connote KU activity, is being combined with teaching in this categorization because so many institutions meant institutional service, e.g., committee assignments, when specifying this criterion.

The pattern of organizational dissonance within SCDEs about KPU which was mentioned in earlier sections is most evident in this case. SCDEs with no visible support base for KPU not only aspire to produce in this area but make personnel policy moves consistent with their aspirations rather than their resources. It costs nothing in a budgetary sense to apply performance criteria to faculty while it is extremely expensive to allocate time in a labor-intensive budget. But the consequence of choosing to do the former while being unable to do the latter must be organizationally unhealthy. Not only are faculty bound to be threatened by such a practice but the institution eventually has to invent substitute activities to fulfill the criteria for evaluation since most faculty will not be able to meet the stated criteria. This situation is probably worse in the final analysis than never having had the criteria in the first place.

Faculty Recruitment. The deans were queried as to which of four characteristics of new faculty were considered "essential," "helpful," or "not important," i.e., success in instruction, evidence of prior publication, graduate level R and D training, and success in working with personnel in school settings. Success in instruction was a low yield item since all but three deans reported it as essential. No one noted that it was unimportant.

Evidence of prior publication was more frequently noted in the doctoral level institutions as essential (11 of 39) and never reported as unimportant. Outside the doctoral group only three institutions checked it as essential but 18 noted it as unimportant. The pattern was similar for graduate level R and D training. The most surprising aspect of the responses about R and D training was the infrequency with which it was noted as essential. Only 15 of the 39 doctoral level institutions cited it as essential, including only two of the seven "A-Publics." In all, only 25 SCDE deans noted that graduate level research training was essential for new faculty and 20 noted that it was unimportant. On the assumption that all or nearly all professors in doctoral level institutions will be expected to direct the research of graduate students, and that all are expected to produce research to attain promotion, this seems to be an incredible lack of attention to graduate level research training for prospective faculty members in SCDEs.

In contrast, KU came off much better than KP. Nineteen of the 39 doctoral institutions thought that success in school settings was essential and, in other SCDEs 87 noted it as essential. This is undoubtedly an over-estimate of the number of deans who were thinking about KU activity when responding to this question. A substantial number, perhaps most, were probably concerned about the success of the young faculty member in supervising teachers and other interns in the field.

In all, the data on recruitment seemed to indicate that the teaching function, undergraduate and graduate, is foremost in the dean's mind in recruiting new faculty. R and D runs a very distant second. This is consistent with the overall load assignments to faculty but inconsistent with policies in faculty evaluation. In the case of doctoral level institutions (especially "A-Publics") it is inconsistent with both load and evaluation policies.

Organizational Support Practices for Faculty in KPU

In addition to designating agents, maintaining agencies, and adopting and administering personnel policies to support KPU, an institution can create a variety of arrangements which singly or in combination could be expected to facilitate the involvement of their personnel in KPU activities. The deans were asked about the following nine arrangements that could be made to support KPU in SCDEs:

1. Designated (named) professorships to support KPU.

2. Reallocation of some portion of university overhead funds on outside grants or contracts to the revenue generating unit.

3. Seed grant funds for professors who are developing proposals or are in the preliminary stages of an R and D, evaluation, dissemination, special training, or field service project.

4. Discretionary funds, other than those noted above, that can be used by the SCDE in support of faculty involvement in KPU.

5. Sufficient budgetary flexibility so that the dean and/or a department chairperson could release faculty members from part of their instructional load to pursue KPU activities.

6. Sabbatical leaves for faculty.

7. Summer fellowships for KPU activity.

8. Special leaves of other types for faculty to engage in KPU activities.

9. Retreats or symposia for faculty on either process or substantive issues and topics relevant to KPU in education.

The responses to the queries about these arrangements are summarized in Table III-11 and will be reviewed briefly below:

Designated Professorships. This device is used infrequently in all SCDEs. Only 14 respondents reported having such arrangements available. Almost all of them (10) were in the doctoral level institutions.

TABLE III-11

SCDE ORGANIZATIONAL ARRANGEMENTS IN SUPPORT OF FACULTY INVOLVEMENT IN KPU

Type	Control	Characterization of Practice by Institutional Type								
		Designated Professorships	Reallocation of Overhead	Seed Grants	SCDE Discretionary Funds	*Ad Hoc* Load Reductions	Sabbatical Leaves	Summer Fellowships	Special KPU Leaves	Retreats or Symposia
A	Public	4	2	2	1	1	2	3	2	2
	Private	3	4	4	1	2	3	5	2	6
B	Public	5	3	1	3	2	3	4	3	2
	Private	6	4	3	6	3	1	3	3	3
C	Public	5	5	4	4	3	2	5	4	4
	Private	6	6	5	5	4	3	5	4	5
D	Public	6	5	3	5	4	1	4	5	3
	Private	5	5	5	5	5	2	5	5	5
E	Public	6	6	5	6	6	2	3	5	3
	Private	6	5	5	5	5	2	4	4	2
F	Public	6	6	5	5	5	2	5	5	5
	Private	6	6	5	5	6	2	4	4	4

Table Code:
1 - Always or almost always (90-100%)
2 - Frequent (65-89%)
3 - More typical (50-64%)
4 - Less typical (35-49%)
5 - Infrequent (10-34%)
6 - Never or almost never (0-9%)

Overhead Reallocation. No issue relating to KPU generated more heat or discontent on the part of faculty personnel in SCDEs during the RITE staff site visits than practices for reallocation of overhead to academic units. The combination of high overhead charges and small percentage allocations or no return of overhead to revenue generating units is viewed by many SCDE faculty as an institutional "rip-off," however solid the accounting basis may be for establishing the overhead rate. The practice of reallocation is restricted almost entirely to "A," "B," and "C" type institutions. The "A" and "B" publics are most likely to have arrangements for overhead return (17 of 26 cases). Among the public research center institutions five of seven had some such arrangement. The private research center universities have reallocation plans in two of five instances and the total private doctoral group in five of 13 institutions. Only six of the 25 "C-Publics" and one of the 14 "C-Privates" reported this practice. The infrequency of this policy in the sub-doctoral categories is a likely but inconclusive piece of evidence that not much external contract and grant activity occurs in such institutions.

Seed Grants to Faculty. Seed grants were primarily reported as support devices by the doctoral public institutions. Twenty-four of the 26 SCDEs in this group reported making such grants to faculty and in 12 of these instances they reported that 10 or more such grants had been made to their faculty members over the past two years. Only about half the doctoral privates (seven of 13) employ the technique and five of these seven reported four or fewer grants over the two year period. Ten of the 25 "C-Publics" made such grants as did five of the eight "D-Publics." In all other categories such grants were infrequent.

SCDE Discretionary Funds. This item distinctly separates the research center institutions from other SCDEs. All 12 reporting deans from these sites noted the availability of discretionary funds for KPU. Only 11 of the 19 other public doctoral institutions reported positively on this item and none of the eight other private doctoral sites indicated such intra-SCDE flexibility. Nine "C-Publics" had such funds. In all other groups the availability of discretionary funds was infrequent.

Ad Hoc Load Reductions. This item is similar to the question about SCDE discretionary funds in that both deal with intra-SCDE flexibility in using resources in support of KPU activities. And the pattern of responses is similar across public and private institutions and among categories although the total number of positive responses is higher in all institutional categories than was the case with general SCDE discretionary funds. Eleven of the 12 research center institutions reported the flexibility to arrange such load reductions. The "B-Publics" noted such flexibility in 15 of 19 cases; the "B-Privates" in four of eight. A majority of the "C-Publics" (14 of 25) responded positively. The generally higher level of positive response across categories is probably due to the fact that the arrangements required by this item can be manipulated internally by the dean without necessary reference to superordinate administrators, while the allocation of discretionary funds to the SCDE implies that funds were made available by superordinate administrators to the SCDE and that an accountability chain exists.

Sabbatical Leaves. As indicated in Table III-11, sabbatical programs are as likely or unlikely to be found in one institutional type as another. Sabbatical leave programs are apparently designed to serve institutional missions whatever they may be, i.e., in research center institutions sabbaticals undoubtedly support research missions, in teacher center institutions they support instruction. They are common in most SCDEs; 100 of the 135 respondents reported operating sabbatical leave programs.

Summer Fellowships. Special summer programs of faculty fellowships are less frequent than sabbatical leave programs (51 of the 135 institutions reported operating such a program) but are distributed across institutional types in much the same manner as sabbaticals, e.g., 17 of 39 doctoral level institutions reported such programs, 18 of 42 baccalaureate level institutions. Again, the observation should probably be made that such programs are not restricted to KPU missions but are designed to serve whatever the predominant institutional mission may be. The availability of sabbatical leaves and summer fellowships does establish the fact that non-doctoral institutions have and use faculty development resources, and if KPU missions were primary missions in such settings some of the SCDEs would have a local support base to buttress their participation.

Special KPU Leaves. This miscellaneous leave category does distinguish among institutional types. Such leaves are frequent in the research center institutions and among the other doctoral level institutions that were classified as 1A2s and 2A2s in the original RITE category system. Only one of the eight 1B/C and 2B/C institutions in the original RITE category system reported such leaves. No other institutional type reported as many as half the institutions maintaining special KPU leaves.

Retreats or Symposia for Faculty. No pattern across institutional types was evident in the response to this item. Again, apparently the item was interpreted as including in-service activities for faculty for any purpose. It is interesting to note that all the "A-Privates" responded negatively to this question. This may represent nothing but a curiosity but it does fit the generalization that the process of socialization to KPU in such units is more subtle than would be implied by convening the faculty in a retreat, symposium, or other formal in-service activity.

Organizational Arrangements with Extra-SCDE Agencies in Support of KPU

Some SCDEs maintain formal relationships with other educational agencies for KPU purposes through such mechanisms as study councils, leagues of schools, etc. and/or extend their interests outside the SCDE but still within the campus through joint appointments and inter-departmental projects and programs. A characterization of SCDE involvement in such arrangements is summarized in Table III-12.

Relationships with Field Agencies. This question was directed toward the arrangements that SCDEs frequently maintain with SEAs, LEAs, professional associations, etc. in support of KPU. The assumption behind the query was that most such relationships are in support of KU functions and the responses bore that out. Only one of the "A-Privates" reported such a formal relationship, but all the "A-Publics" reported one or more of them. The "B," "C," and "E-Publics" all frequently maintained such a relationship; among "B-Publics" 13 of 19; "C-Publics" 17 of 25; and "E-Publics" four of six. This question tended to affirm two points of concern to the RITE staff. First, there is a difference worth noting between the "C" and "E" and "D" and "F" institutional types. The *a priori* prediction was that the former groups, i.e., "C" and "E" were more likely to reflect a broad commitment to teacher education than the latter. A higher percentage of their students are enrolled in teacher education programs and they maintain broader contacts with the national teacher education community. They do, in fact, seem to be more involved in KU-type field relationships, at least the public institutions within the groups. Second, institutions

TABLE III-12

ORGANIZATIONAL ARRANGEMENTS MAINTAINED BY SCDEs WITH EXTRA-SCDE AGENCIES

Type	Control	Characterization by Institutional Type	
		Relationships with Agencies Outside University	Inter-Departmental Arrangements at the University
A	Public	1	2
	Private	5	1
B	Public	2	4
	Private	3	3
C	Public	2	4
	Private	4	5
D	Public	4	6
	Private	4	5
E	Public	2	5
	Private	5	5
F	Public	5	5
	Private	5	3

Table Code:
1 - Always or almost always (90-100%)
2 - Frequent (65-89%)
3 - More typical (50-64%)
4 - Less typical (35-49%)
5 - Infrequent (10-34%)
6 - Never or almost never (0-9%)

that seem less involved in KP productivity may be finding outlets for staff creativity in KU involvements. Again, the percentage of the public institutions outside the research center group involved with other educational agencies in school improvement activities is quite high. This may be especially significant in the "C-Public" category in which there are large numbers of SCDE faculty that might be considered as an active manpower pool to increase national KU activity in education.

Joint Appointments/Inter-departmental Arrangements. Cross-departmental, on-campus arrangements designed to bring SCDE faculty together with other faculty for joint KPU activity is a useful variable on which to sort research center institutions in particular and doctoral level institutions in general. Fifty-five such arrangements were reported in all. Twenty per cent were clustered in the research center group (11 of 12 institutions reported such patterns). The only unexplainable exception to the pattern was in the "F-Private" type where six of the 11 institutions responded positively to the item. In general, such arrangements were reported more frequently in the private than the public institutions. Perhaps the smaller overall size and greater organizational informality of these settings is more conducive to establishing and maintaining joint appointments and inter-departmental arrangements.

Graduate Student Involvement in SCDE Programs

In examining the full range of personnel available in SCDEs one would be remiss in graduate level institutions in overlooking students who are working as research assistants, teaching assistants, and graduate assistants. Table III-13 summarizes the number of graduate students working in SCDEs during the 1974-75 academic year in these several capacities.

The richest mix of graduate students working as R.A.'s, T.A.'s, and

TABLE III-13

NUMBER OF GRADUATE STUDENTS INVOLVED IN SCDE PROGRAMS AS G.A.'s, R.A.'s, T.A.'s

Type	Control	Median Number by Institutional Type			Total	Ratio:Total G.A.'s to Regular Faculty	Ratio:Total G.A.'s to Students Completing Doctoral Programs
		Teaching Assistants	Research Assistants	Other Graduate Assistants			
A	Public	37.5	21.9	9.4	68.8	.6:1	.6:1
	Private	37.5	34.4	6.2	78.1	1.2:1	2.2:1
B	Public	19.3	18.8	7.0	45.1	.4:1	1.4:1
	Private	5.0	10.7	0.0	15.7	.6:1	1.9:1
C	Public	0.0	0.0	13.8	13.8	.3:1	-
	Private	0.0	0.0	7.1	7.1	.5:1	-
D	Public	0.0	0.0	0.0	0.0	0	-
	Private	0.0	0.0	0.0	0.0	0	-
E	Public	-	-	-	-	-	-
	Private	-	-	-	-	-	-
F	Public	-	-	-	-	-	-
	Private	-	-	-	-	-	-

G.A.'s to regular faculty was reported by the "A-Private" institutions. In these SCDEs, the total number of graduate assistants actually exceeds the total number of full time education faculty. In view of the fact that the "A-Privates" reported a median of 35 doctoral students completing degrees in 1975, it is also likely that most students in such settings are involved in assistantship experiences.

The "A-Publics" have a large number of graduate students working in their programs but recall (Table III-5) that they have nearly three times as many total students completing education degrees as the "A-Privates." The median number of T.A.'s in both institutional types was exactly the same. The "A-Publics" have distinctly fewer R.A.'s than the "A-Privates." In total the "A-Publics" probably have as few as 25 percent of their doctoral student population involved in assistantships (this assumes 113 doctoral students completing their programs each year and active students spread over three years of work). Obviously, the number of graduate assistants employed in the "A-Public" institutions does not account for the earlier noted discrepancy between the ratio of graduates in education to faculty members in this setting compared to other doctoral settings.

The "B-Publics" have fewer graduate assistants per faculty member than any of the other doctoral groups but doctoral students are more likely to have assistantships in these institutions than in the "A-Publics" (i.e., the ratio of graduate assistantships to graduate students was higher in the "B-Publics"). The ratio of R.A.'s to T.A.'s is higher in these universities than in the public research center institutions.

The "B-Privates" are identical to the "A-Publics" in the ratio of graduate students to faculty but graduate students attending such institutions are much more likely to hold an assistantship and to be assigned as an R.A. rather than a T.A.

Private institutions as a group are better off than their public counterparts in the availability of assistantships for graduate students. The public research center institutions are surprisingly low in their assistantship support and especially so in the number they classify as research assistants.

Summary

This completes the second step in the pattern of sequential organizational analysis, i.e., the test of the proposition that an institution pursuing a KPU mission will manifest organizational policies and practices in support of that mission. This step, as was expected when the study was designed, is much more discriminating in identifying differences among institutional types than was the analysis of missions. For summary purposes, Table III-14 lists the organizational variables on which information was gathered and in regard to which one or more institutional types reported that 65 per cent or more of the institutions in the category used this technique in support of KPU. Some summary observations are in order:

1. Public research center institutions employed almost all the standard organizational devices to support the involvement of their faculty in KPU. Their deficiencies were made even more obvious because of this uniformly high effort in KPU support, i.e., (a) the SCDE faculty size in such institutions is smaller than in other doctoral institutions in relation to the number of education students with whom they are working at all levels; (b) the availability of graduate assistantships, and especially research assistantships, is less in relation to their size than the other doctoral level institutions; (c) they place less emphasis on

TABLE III-14

PROFILE OF INSTITUTIONAL TYPES IN WHICH SIXTY-FIVE PER CENT OR MORE OF THE REPORTING INSTITUTIONS INDICATED THAT A GIVEN ORGANIZATIONAL PRACTICE WAS EMPLOYED IN SUPPORT OF KPU

Organizational Arrangement	Institutional Types in Which the Arrangement is Frequent											
	Type A		Type B		Type C		Type D		Type E		Type F	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
1. KPU Bureaus or Institutes	✓	✓	✓	✓	-	-	-	-	-	-	-	-
2. SCDE Coordinators of KPU	✓	-	✓	-	-	-	-	-	-	-	-	-
3. Faculty Committees for KPU	✓	-	-	-	-	-	-	-	-	-	-	-
4. University Research Foundation	✓	-	-	-	-	-	-	-	-	-	-	-
5. University Contract Officer	✓	✓	✓	✓	✓	-	✓	-	-	-	-	✓
6. Grant Dissemination System	✓	✓	✓	✓	-	-	-	-	-	-	-	-
7. Faculty Released Time for KPU	✓	✓	✓	✓	-	-	✓	✓	-	-	-	-
8. Required R and D Training for Recruit.	-	✓	-	-	-	-	-	-	-	-	-	-
9. Reallocation of Overhead	✓	-	-	-	-	-	-	-	-	-	-	-
10. Seed Grants to Faculty	✓	-	✓	-	-	-	-	-	-	-	-	-
11. SCDE Discretionary Funds	✓	✓	-	-	-	-	-	-	-	-	-	-
12. *Ad Hoc* Faculty Load Reduction	✓	✓	✓	-	-	-	-	-	-	-	-	-
13. Sabbatical Leaves	✓	-	-	✓	✓	-	✓	✓	✓	✓	✓	✓
14. Special KPU Leaves	✓	✓	-	-	-	-	-	-	-	-	-	-
15. Faculty Retreats or Symposia	✓	-	✓	-	-	-	-	-	✓	✓	-	-
16. Relationships with Field Agencies	✓	-	✓	-	✓	-	-	-	✓	-	-	-
17. Inter-departmental Arrangements	✓	✓	-	-	-	-	-	-	-	-	-	-

R and D backgrounds for the recruitment of new faculty than would have been predicted from their other organizational arrangements. These institutions are, however, obviously exhibiting high effort in support of a KPU mission.

2. Private research center institutions eschew many formal structural arrangements in support of KPU, e.g., research coordinators, faculty committees, faculty retreats, etc., but reflect strongly their commitment to KP in released time for faculty, graduate student support, discretionary resources for the SCDE dean, faculty recruitment, etc. Their organizational emphasis on KP rather than KU is consistent with the orientation in their mission statements.

3. Type "B-Public" institutions employ the standard SCDE-level support structures for KPU; make available released time for faculty; have a solid base of graduate student support; and maintain a mix of faculty support mechanisms for KPU. The type "B-Privates" provide released time for faculty and graduate student support but have a limited program of support in other respects.

4. All the remaining institutional types are, as groups of institutions, pretty much out of this game. The critical components are missing, e.g., released time for faculty, graduate student availability, KPU bureaus or institutes. As institutional types, their organizational arrangements in support of KPU are out of synchronization with their assessment of the significance of KPU activities at the level of mission statements. The most interesting follow-up with these institutional types would be to discover the individual SCDEs that are mavericks in the groups, i.e., the institutions that have set out to support an institutional commitment to either KP, KU, or both.

KPU Activities and Products in SCDEs

Although independent studies of SCDE productivity in KPU[1] were being conducted simultaneously by the RITE project staff, the institutional respondents were also asked to report directly on KPU activities and products in their institutions. These reports covered dissemination; research, development, service, and training programs for graduate students in education.

Dissemination

Table III-15 summarizes the responses of the deans to questions about the level of educational dissemination activities in their units. There is relatively little to report. Twenty-six of the institutions publish a regular journal or newsletter to practitioners. These are concentrated in the doctoral institutions (18) and the "C-Publics" (seven). In this respect, the "A-Privates" are active in the dissemination area--four of five reporting such a newsletter or journal.

Over half the respondents (71) noted that their faculty seldom published in practitioner-oriented journals. In contrast, only 18 noted that faculty members were frequent contributors. The pattern of this publication activity was almost identical to that for the journal or newsletter. Fifteen of the 18 faculties noted as frequent contributors centered in types "A," "B," and "C-Public." In this instance, the "A-Privates" were not well represented--three indicating occasional contributions, and two reporting that their faculty seldom published in such journals.

As might be anticipated from the previous paragraph, editorial work

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[1] A report on these yield studies is found in Chapter V.

TABLE III-15

LEVEL OF DISSEMINATION ACTIVITIES REPORTED BY SCDE DEANS[1]

Type	Control	Characterization by Institutional Type				
		Journal or Newsletter to Practitioners	Publications in Practitioner Journals	Editorial Work on Practitioner Journals	Papers at Practitioner Conferences	Sponsorship of Practitioner Conferences
A	Public	3	5	5	2	5
	Private	2	6	6	4	5
B	Public	4	5	5	2	3
	Private	5	3	6	2	6
C	Public	5	5	6	5	6
	Private	6	6	6	5	6
D	Public	6	5	5	5	6
	Private	6	6	6	5	5
E	Public	6	6	6	6	6
	Private	6	6	6	6	6
F	Public	6	6	6	6	6
	Private	6	6	6	6	6

[1] Institutions noting "frequent" involvement. The responses "occasionally" or "seldom" are not included in this characterization.

Table Code:
1--Always or almost always (90-100%)
2--Frequent (65-89%)
3--More typical (50-64%)
4--Less typical (35-49%)
5--Infrequent (10-34%)
6--Never or almost never (0-9%)

by SCDE faculty on practitioner journals was infrequent in all institutional types.

A considerably larger number of deans indicated that their faculty members were active in presenting papers or speeches at practitioner-oriented conferences, e.g., AASA, state conferences of teachers, etc. In all, 39 of the respondents noted that this is a frequent occurrence. The doctoral level institutions are very active; 26 of the 39 institutions checked the response "frequent." This level of activity was spread across the categories of doctoral institutions rather than concentrating in the research center group. The "A-Privates" were, in fact, less involved than the other groups. Five of the 25 "C-Publics" noted that their faculty is frequently involved in this activity as did four of the 14 "C-Privates." In all other institutional types the notation "seldom" was noted much more often (23) than the response "frequently" (three).

Research

As is quickly evident in Table III-16, regularized faculty involvement in educational research activities is restricted almost solely to the doctoral level institutions. Only 15 deans reported that "many" of their faculty were active members of the American Educational Research Association and eight of those 15 institutions were among the 12 research center SCDEs. The most popular response among all baccalaureate level institutions (27 of 42) was "none" even though the respondent was provided an opportunity to check "few." No doctoral level or "C-Public" dean indicated that none of his/her faculty were AERA members; but active membership stops short with this group. Forty of the 64 deans in these categories checked "many" or "some." Only eight of the remaining 71 chose these responses.

TABLE III-16

LEVEL OF RESEARCH ACTIVITIES REPORTED BY SCDE DEANS[1]

Type	Control	Characterization by Institutional Type				
		Faculty Membership in AERA	Publications in Research Journals	Editorial Work on Research Journals	Papers at Research Conferences	Operating Externally Funded Projects
A	Public	3	5	5	2	1
	Private	2	1	4	1	1
B	Public	5	5	5	4	2
	Private	5	5	6	5	2
C	Public	6	6	6	6	4
	Private	6	6	6	6	4
D	Public	6	5	6	5	5
	Private	5	5	6	5	5
E	Public	6	6	6	6	6
	Private	6	6	6	6	5
F	Public	6	6	6	6	5
	Private	6	6	6	6	5

[1] Institutions noting "frequent" response. Other responses, e.g., "occasionally," "seldom or never" are not included in this characterization.

Table Code: 1--Always or almost always (90-100 per cent)
2--Frequent (65-89 per cent)
3--More typical (50-64 per cent)
4--Less typical (35-49 per cent)
5--Infrequent (10-34 per cent)
6--Never or almost never (0-9 per cent)

Frequent publication in research journals was reported almost solely by the "A-Privates" (five of five). Even the "A-Publics" indicated frequent publication in only two of seven instances. Across the entire sample, only 13 deans noted that their faculty publish frequently in such journals. Below the doctoral institution type, 77 of the 96 respondents indicated that their faculty "seldom or never" publish in research journals. Among the doctoral institutions, all of the research center group, 13 of 19 among the "B-Publics," and four of eight of the "B-Privates" noted that their faculty are "occasional" or "frequent" contributors.

Editorial work on research journals is infrequent in all institutional types except the research center institutions. All 12 of these respondents noted that their faculty "frequently" or "occasionally" edit or serve on the editorial boards of such journals. Across all other institutions, only 30 respondents indicated even occasional activity and 19 of these were in the "B-Public" and "B-Private" groups.

Faculty papers and speeches at research conferences follow the pattern of the research activities reported earlier. Eleven of the 12 research center institutions reported that faculty are frequently involved in this activity. Sixteen of the 19 "B-Publics" and five of the eight "B-Privates" noted frequent or occasional involvement. Among the "C-Publics" two reported frequent involvement and nine occasional involvement. Three of the eight "D-Publics" noted occasional involvement and one noted frequent involvement. In all other institutional groups any level of involvement is the exception.

A larger number of externally funded research projects were reported by the institutions than might have been predicted on the basis of the preceding data. In all, 57 of the 135 deans reported that members of their faculty were engaged currently in externally funded research projects. Almost obviously, all 12 research center institutions responded positively to this item. Fifteen of the 19 "B-Publics" reported current projects and six of the eight "B-Privates." Nine projects were reported by the "C-Publics" and six were noted by the 14 "C-Privates." Activity in other institutional types was very sporadic and would seem to indicate idiographic rather than nomothetic productivity.

Development

The reader may recall in the section on missions that development seemed to be a mission area in which only the doctoral level institutions manifested any commitment. In general, Table III-17 bears out this assessment on the basis of the level of development activity in SCDEs. Thirty-two respondents noted that "many" or "some" of their faculty currently have a textbook on the market. Twenty-four of these responses were from the 39 doctoral level institutions. Five of the remaining eight are in the "C-Publics."

Only two deans outside the doctoral group indicated that their faculty are called upon frequently as consultants, writers, or evaluators by publishers of educational materials. By contrast, 17 of the doctoral level institution deans noted frequent involvement.

As is the case with current externally funded research projects, the level of frequency of development projects is higher than either the mission statements or the responses to earlier questions in the section would have indicated. Fifty-five deans reported that current development projects are underway in their SCDEs supported by external funds, almost the same number of projects reported in the research category. The distribution of projects is similar. Ten of the 12 research center institu-

TABLE III-17

LEVEL OF DEVELOPMENT ACTIVITIES REPORTED BY SCDE DEANS

Type	Control	Characterization by Institutional Type			
		Textbook Production[1]	Consultative Assistance to Publishers[1]	Operating Externally Funded Projects[2]	Examples of Widely Disseminated Products[2]
A	Public	4	3	2	2
	Private	5	2	2	4
B	Public	5	4	2	3
	Private	5	5	4	3
C	Public	6	6	3	4
	Private	6	6	5	5
D	Public	6	6	5	4
	Private	6	6	5	5
E	Public	6	6	5	5
	Private	6	6	5	6
F	Public	6	6	5	6
	Private	6	6	6	6

[1] Institutions noting "frequent" response. Other intermediate responses, e.g., "occasionally," are not included in this characterization.

[2] Institutions noting a positive response.

Table Code:
1--Always or almost always (90-100 per cent)
2--Frequent (65-89 per cent)
3--More typical (50-64 per cent)
4--Less typical (35-49 per cent)
5--Infrequent (10-34 per cent)
6--Never or almost never (0-9 per cent)

tions reported such projects. Twenty-nine in all were reported in doctoral level institutions compared with 33 research projects. The "B-Publics" have 16 active projects. The "B-Privates" are down from six research projects to three development projects. The "C-Publics" reported 13 projects and the "C-Privates" four. There are more individual development projects spread across the other institutional types than is the case with research projects. In contrasting currently active externally funded research and development projects in SCDEs, there is nothing that would cause the observer to anticipate that one or the other activity would be considered more or less central to the mission of SCDEs in non-doctoral institutions. The number of current projects is almost identical. But research activity obviously commands higher status in the field of education and must have influenced the respondents in choosing among mission statements.

The deans were asked further if any members of their faculty are the authors or inventors of widely disseminated products used by practitioners in education. Eleven of the 12 research center deans responded affirmatively. Twelve of the 19 "B-Public" deans and five of the eight "B-Privates" could cite such examples. Nearly half (12) of the "C-Publics" offered examples but other responses were spread sporadically across institutional types.

Service

The responses of the deans to faculty involvement in service activities is characterized in Table III-18. Almost all SCDE faculties in doctoral and masters level institutions were reported as involved to some extent ("many" or "some") in individual, ad hoc service arrangements with schools. Only three doctoral level institutions (two private research

TABLE III-18

LEVEL OF SERVICE ACTIVITIES REPORTED BY SCDE DEANS[1]

Type	Control	Characterization by Institutional Type			
		Faculty Ad Hoc Service Arrangements	Requests for Service from Schools	Faculty Service through Professional Associations	SCDE Service Arrangements with Schools
A	Public	4	3	2	2
	Private	4	5	3	4
B	Public	2	3	4	3
	Private	4	3	4	5
C	Public	4	3	4	4
	Private	4	5	5	6
D	Public	3	3	3	5
	Private	6	6	6	5
E	Public	5	6	6	3
	Private	5	6	6	5
F	Public	3	6	5	5
	Private	6	6	6	5

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[1] Institutions noting "many" or "frequent" responses. Other intermediate responses, e.g., "occasionally" are not included in this characterization.

Table Code:	
1--Always or almost always (90-100 per cent)	4--Less typical (35-49 per cent)
2--Frequent (65-89 per cent)	5--Infrequent (10-34 per cent)
3--More typical (50-64 per cent)	6--Never or almost never (0-9 per cent)

center SCDEs) noted "few" or "none." The most active entrepeneurs were the "B-Publics" where 13 of the 19 deans reported that many of their faculty are involved in such service arrangements. In the remaining institutional types at the doctoral and masters levels, about half reported "many" involved and half "some." Faculty involvement tails off sharply in the baccalaureate institutions but even here only two deans reported no faculty involved. This is by far the highest level of activity reported in the KPU area by all faculty in SCDEs including those in non-doctoral settings.

The deans also reported numerous service projects with schools in which faculty members participate as part of their regular load, e.g., curriculum surveys, on-site workshops, etc., but the frequency of these faculty involvements with schools is lower than the individually negotiated ad hoc arrangements. Among the doctoral level institutions, these institutionally-sponsored service arrangements split on the private/public variable. Fifteen of the 26 public institutions reported such activities but only three of the 13 private universities did so. As earlier data indicated, the "C-Publics" are active (12 of 25) but like their doctoral-private counterparts the "C-Privates" are not involved (one of 14). The same distinction is evident among the "E-Publics" (three of six) and the "E-Privates" (two of 19).

The deans were asked about the frequency with which they received requests for service from schools and their responses by institutional type were similar to the responses to the preceding question, e.g., 16 of the doctoral public SCDEs noted frequent requests for service from LEAs and 15 had noted service arrangements with schools. Five of the private doctoral group and 13 of the "C-Publics" indicated frequent requests.

Three of the former and 12 of the latter had noted service arrangements. The only difference worth noting is the "D-Publics" in which category only one of eight had indicated service arrangements but four of eight cited frequent requests.

Finally, the deans were asked whether members of their faculties were involved in service activities through state and national professional associations, e.g., by holding offices or committee asigmments. The answer was almost uniformly "yes." Only 22 deans indicated "hardly at all" and 11 of these were among the 30 private baccalaureate institutions. Twenty-one of the 39 doctoral institutions noted "frequently" and this included nine of the 12 research center institutions. Nine of the 25 "C-Publics" and four of the 14 "C-Privates" responded "frequently." Four of eight "D-Publics" responded "frequently." The remainder of the positive responses were spread uniformly across other institutional types.

KPU Training Programs

Table III-19 characterizes the training programs in KPU being offered in SCDEs for graduate students. These items were, of course, irrelevant to the type "E" and "F" baccalaureate level institutions.

Only one masters level institution operates a special training program for students interested in R and D, evaluation, dissemination, or field services. At the doctoral level, only 20 of the 39 SCDEs reported such a program. Four of the five "A-Privates" and four of seven "A-Publics" noted that such a program exists.

Most graduate students are not exposed to KPU experiences during their graduate study. Even among the research center institutions, only five of 12 deans reported that many doctoral students have such experiences during their tenure at the SCDE. One of the private research center institutions

TABLE III-19

KPU TRAINING PROGRAMS FOR STUDENTS REPORTED BY SCDE DEANS

Type	Control	Characterization by Institutional Type			
		Maintain a KPU Training Program	KPU Experiences for Graduate Students[1]	Students Publish During Doctoral Program[2]	Grant Support for Student KPU
A	Public	3	4	2	1
	Private	2	4	4	3
B	Public	4	5	4	2
	Private	3	5	4	3
C	Public	6	5	6	5
	Private	6	6	6	6
D	Public	6	4	6	5
	Private	5	5	6	5
E	Public	-	-	-	-
	Private	-	-	-	-
F	Public	-	-	-	-
	Private	-	-	-	-

[1] Institutions noting that "many" graduate students have such experiences.

[2] Institutions noting that "many" or "some" students publish during the period of their graduate study.

Table Code:
1--Always or almost always (90-100%)
2--Frequent (65-89%)
3--More typical (50-64%)
4--Less typical (35-49%)
5--Infrequent (10-34%)
6--Never or almost never (0-9%)

and seven other doctoral institutions reported that "few" have such experiences.

Small grant support for students to pursue KPU projects, however, is quite frequent. Twenty of the 26 public doctoral institutions and eight of the 13 private doctoral sites reported its availability.

The availability of such support does not lead to publications by doctoral students during the period of their doctoral study. Only one dean noted that "many" students publish during this period. In the research center sites, eight deans reported that "some" students publish and four indicated "few." Nine of the 27 other doctoral sites noted that "some" publish; eight of the remaining 18 that "few" publish.

The overall strength of the response about KPU training programs does not paint as bright a picture of doctoral level training for KPU in SCDEs as might have been inferred from the availability of assistantships reported in an earlier section of this paper.

Summary

There are remarkably few differences to be noted by institutional type among the various activity areas of KPU involvement--many fewer than one would have predicted by a careful analysis of the mission emphases described in Table III-7. Doctoral level institutions dominate the activity areas whether one is concerned with dissemination, research, development, service, or KPU training. A few observations:

1. The deans noted a surprisingly low level of faculty publication in practitioner-oriented journals. The most frequent contributors are the "A," "B," and "C" publics.

2. The research center institutions are less dominant among the doctoral institutions in dissemination activities than in other activity areas.

3. Research activity is more sharply restricted to the doctoral level institutions, and among them to the research center institutions, than would have been predicted from the responses made by the deans to mission emphases.

4. Development activities, contrary to the mission profiles, are spread among institutional types almost exactly as are research activities.

5. Service activity is more widely dispersed among institutional types than R and D although it is still clearly dominated by institutions with graduate programs. Public institutions in all category types are more involved in service programs than their private counterparts.

6. The activity in special KPU training programs for graduate students is sluggish even among the doctoral institutions. Most doctoral students in education apparently do not become KPU producers during the period of their doctoral study.

Other Observations About KPU

The deans were queried about two items that did not fit comfortably within the organizational structure employed in this chapter. First, several institutions noted during the preliminary site visits that their mission and activity in KPU was influenced by legal or policy constraints placed upon their involvement in KPU. This seemed worth pursuing to determine if the problem were widespread. Second, a list of advantages had been accumulated as to why SCDEs might want to support KPU activity as a regular part of their program. How various institutional types viewed these purported advantages seemed worth investigating.

Legal or Policy Constraints on KPU Activity

As will be noted in Table III-20, legal or policy constraints on

TABLE III-20

LEGAL OR POLICY CONSTRAINTS PLACED UPON SCDE INVOLVEMENT IN KPU ACTIVITIES

Institutional Type		Percentage of Institutions Reporting Constraints
A	Public	14.3
	Private	0.0
B	Public	21.1
	Private	0.0
C	Public	48.0
	Private	0.0
D	Public	12.5
	Private	0.0
E	Public	16.7
	Private	5.3
F	Public	33.3
	Private	0.0

KPU activity is a non-issue in the private institutions. There are a few such sites in which boards of trustees have adopted policies restricting application for and acceptance of Federal funds or have issued mission, goal, or policy statements which emphasize student-centered activities. These latter statements might be interpreted as policies limiting a college's involvement in KPU, but the deans of the SCDEs in the private institutions in the sample did not view these as constituting a significant problem area.

The same cannot be said for the public institutions. One of the research center institutions reported that its board of trustees had adopted a rule that faculty could not be away from campus for more than two days per month for consulting service. This was typical of one class of constraints reported. Three of the four cases reported by the "B-Publics" dealt with the same constraint. The other reported constraint, which derived from the state charter to the institution, represented an effort to parcel out responsibilities among state institutions; in this case, by designating this state university as a "teaching university" without responsibility for, and apparently with limited resources to support, R and D ventures.

Among the masters level public institutions, several reported state level restrictions on the scope of the institution's mission (i.e., teaching rather than research); three added geographic restrictions, i.e., KU activity and in-service offerings to be undertaken only within what was defined as a natural geographic area of influence; three mentioned restrictions on faculty involvement in consulting activities; and two noted that the regulations on limited KP involvement were enforced not only through funding but through limitations on the degree level in education to which the university could aspire, i.e., no degree programs beyond the masters level.

In summary, the nature of the restrictions being imposed on public institutions which affect their level of involvement in KPU activities fall into four categories:

1. Faculty time specifications which take either or both the form of limiting time that could be devoted to consulting or mandating the time to be spent in teaching.

2. Process or activity specifications which either define one or more mission emphases for an institution, e.g., the designation of a teaching university, or exclude a mission specifically from consideration

by an institution.

3. Geographic specifications which define a sub-area of the state as the province for an institution's activity.

4. Degree level specifications which exclude the addition of advanced degree offerings by particular colleges and universities.

Beyond the force of the regulation itself, such restructions are frequently buttressed by building them into the formula for financial allocations to public institutions within a state. It should be noted again, however, that the frequency of such restrictions is low in all institutional categories. If this is a critical issue in KPU activity in SCDEs, it is an emerging issue which has not as yet touched most SCDEs. The group most affected is the masters public institutions which is predictable since they are involved in graduate studies in education but lack full degree status to the doctoral level. The balance to be struck in these institutions between programs of instruction and activities in KPU is more ambiguous than in either their baccalaureate or doctoral counterparts.

Advantages of KPU Involvement

The deans were presented with the following list of 12 often asserted benefits which accrue to institutions of higher education as a result of participation in R and D, evaluation, dissemination, special training, and field service activities:

Interesting learning situations are provided for students.

Internship and/or field experience opportunities are created for students.

Employment opportunities are created for students.

Instructional materials are developed or become more easily accessible.

Additional funds become available.

A more diversified and specialized faculty can be attracted to and retained at the institution.

Good public relations with local school districts are developed and maintained.

Faculty are more likely to stay in touch with developing knowledge.

Faculty improve their instructional skills.

Faculty bring the results of their activities to bear on their classroom instruction.

More instructional equipment becomes available.

More assistance--graduate students, clerical staff, and technical staff--becomes available.

They were asked to indicate which of the benefits did, in fact, accrue to their SCDE. The responses are summarized in Table III-21.

Only in the doctoral level institutions were any of the benefits "almost always" cited. The most revealing single item was the notation by the research center institutions that, "A more diversified and specialized faculty can be attracted to and retained at the institution." In no other institutional type was this item even cited frequently. This tends to emphasize the role of socialization and collegiality in creating and maintaining a productive KPU environment at an institution.

Another marked difference in response patterns can be noted in regard to the item, "Additional funds become available." This is of considerable significance to the research center institutions; is mentioned by some institutions in the "B" and the "C-Public" categories and is then cited infrequently by all other institutional types. Undoubtedly the reaction of institutions to this item is influenced by the percentage of

TABLE III-21

ADVANTAGES NOTED BY DEANS AS ACCRUING TO SCDEs FROM KPU INVOLVEMENT

Type	Control	Improved Learning Situations for Students	Field Experience Opportun. for Students	Employment Opportunities for Students	Instructional Materials are Developed	Added Funds for the SCDE	Recruit. and Retention of Faculty	Improved Public Relations with LEAs	Faculty Currency in Research	Improved Faculty Instructional Skills	Improved Classroom Instruction	More Instructional Equipment	More Support Staff for Faculty
A	Public	+	*	+	+	+	*	X	*	-	+	-	X
	Private	+	+	+	X	*	*	X	+	X	+	X	X
B	Public	+	+	+	X	X	X	+	*	X	+	-	X
	Private	X	*	+	X	X	-	+	+	X	+	X	X
C	Public	X	+	X	X	X	X	+	+	X	+	-	-
	Private	X	X	X	X	-	-	X	X	X	X	-	-
D	Public	X	X	X	X	-	-	X	X	X	X	X	-
	Private	X	X	-	X	-	X	X	X	-	-	-	0
E	Public	X	X	-	-	-	-	+	X	X	X	-	-
	Private	X	-	-	-	-	-	X	X	X	X	-	-
F	Public	0	-	-	0	-	-	-	-	-	-	0	0
	Private	X	X	X	-	-	0	X	-	-	X	0	0

Table Code: * Always or almost always cited (90-100 per cent)
+ Frequently cited (65-89 per cent)
X Varying responses (35-64 per cent)
- Infrequently cited (10-34 per cent)
0 Never or almost never cited (0-9 per cent)

their budget which is coming and has come from grant and contract support for KPU. The current flow of KPU funds is concentrated in the doctoral level institutions and they have been receiving such funds for a sufficiently long period of time that the expectation of this income is now built into their regular budgeting process.

Internship and/or field experience opportunities for graduate students was cited by most of the institutions that maintain graduate programs with any significant number of on-campus graduate students. The same can be said for employment opportunities for students. Improved public relations with LEAs was mentioned by institutional groups "B," "C-Public," and "E-Public" where such relationships would be expected to be of considerable importance. Improved classroom instruction was noted only by the graduate level institutions.

The overall profile is clear. In only one instance was any advantage noted frequently by an institutional type outside the "A," "B," and "C-Public" groups. If the expectation is held that there will ever be significant participation of these SCDEs in KPU, the administrative leadership of these institutions will have to identify a *quid pro quo* which does not now exist. In contrast, the research center institutions find almost all the alleged advantages to be advantages in fact.

Predictions of the Future

Throughout the questionnaire, the deans were asked to pause from time-to-time in their reports on the status of SCDE activities in KPU and conjecture about future trends. This was usually restricted to estimates of what was likely to occur between 1975 and 1980. These projections are presented in the same order in which the status reports were presented in the paper, i.e., demographic projections, organization for KPU, and activities in KPU.

Demographic Projections

Table III-22 summarizes the predictions made by the deans in regard to education enrollment and SCDE faculty size for the next five years. There are some observations worth emphasis:

1. More deans (36) predicted increases of 10 per cent plus in education enrollments over the next five years than predicted decreases of more than 10 per cent (30). The bulk of the respondents anticipated relative stability in enrollment in education ± 10 per cent.

2. The public institutions were considerably more optimistic than the privates. At the doctoral level over one-third of the publics predicted an enrollment increase while only three of 26 predicted a decrease. None of the "A-Privates" predicted an increase and three of the five anticipated decreases of 10 per cent plus. These enrollment projections were reflected in the SCDE faculty size projections. The "A-Publics" predicted stable size; the "A-Privates" projected a decrease in faculty positions; the "B-Publics" predicted what would amount to a substantial increase in faculty; and the "B-Privates" predicted a small decrease. Since the public institutions are already substantially larger in enrollment and faculty size, these predictions, if accurate, would sharply affect the balance among public and private institutions at the doctoral level.

3. At the masters level the same general trend between private and public institutions was evident. The "C-Publics" were more conservative than their doctoral counterparts, with a larger number predicting a decrease in enrollment and faculty size than predicted an increase. Their conservatism, however, was more than offset by the "D-Publics" where seven of eight respondents predicted a faculty size increase of 10 per

TABLE III-22

FIVE YEAR PROJECTIONS BY DEANS OF ENROLLMENT AND FACULTY SIZE IN SCDEs

Type	Control	Projections of Education Enrollment				Projections of Faculty Size			
		Number of Institutions				Number of Institutions			
		Increase by 10% or more	Remain Stable ± 10%	Decrease by 10% or more	No Response	Increase	Stable	Decrease	No Response
A	Public	1	6	-	-	1	5	1	-
	Private	-	2	3	-	-	3	2	-
B	Public	8	8	3	-	11	8	-	-
	Private	1	4	3	-	1	5	2	-
C	Public	5	11	8	1	5	12	8	-
	Private	4	5	5	-	3	7	4	-
D	Public	5	2	1	-	7	-	1	-
	Private	2	4	1	-	3	3	1	-
E	Public	3	3	-	-	1	5	-	-
	Private	3	14	2	-	3	14	1	1
F	Public	1	3	2	-	2	4	-	-
	Private	3	6	2	-	5	5	1	-

cent plus and five of eight estimated a 10 per cent plus growth in enrollment in education. The private masters level institutions are more optimistic than the doctoral privates, predicting relative stability in enrollment and education faculty.

4. The public baccalaureate institutions projected an overall increase in education enrollment and faculty size. None of the "E-Publics" predicted a significant decrease and three of the six felt that education enrollments would increase 10 per cent or more. The "F-Privates" were the most optimistic group of private institutions in the sample with five of 11 projecting faculty increases of 10 per cent or more.

5. Overall 42 deans predicted faculty size increases of 10 per cent or more while only 21 estimated similarly large decreases. Table III-23 illustrates the difference noted above in the relative optimism of the predictions reported by the public and private SCDEs.

TABLE III-23

TOTAL NUMBER OF PUBLIC AND PRIVATE SCDEs PREDICTING SIGNIFICANT CHANGES IN ENROLLMENT AND FACULTY SIZE (±10%) BY 1980

Control	Enrollment		Faculty Size	
	Increase	Decrease	Increase	Decrease
Public	23	14	27	10
Private	13	16	15	11

Organization for KPU

The deans were asked to predict the likely future of the variety of support mechanisms employed by SCDEs to encourage and stimulate KPU activity in SCDEs. Their responses to the various organizational arrangements and policies follow:

KPU Bureaus and Centers. Among the 56 institutions which currently maintain KPU bureaus, centers, or institutes:

1. Eleven indicated that they planned to eliminate bureaus during the next five years. At first glance, this would seem to indicate a decline in significance of such units except that (a) in some instances this simply meant the elimination of one among several bureaus on the same campus and (b) 38 institutions reported that they intend to add such bureaus where none now exist or increase the number of operating KPU bureaus in education. The bureau or center is currently a popular organizational arrangement to support KPU activity in SCDEs and such units are likely to expand rather than contract over the next five years.

2. Bureaus and centers are relatively volatile components in the organizational structures of SCDEs. Not only do they come and go (they come more frequently than they go), but they are likely to experience major changes in substantive or process orientation, often as a result of changes in funding opportunities for KPU. In the 56 institutions maintaining such units, 23 (41 per cent) of the deans reported that they anticipated major changes in their bureaus during the next five years.

Coordinators of KPU Activity. As was noted in an earlier section, many SCDEs assign individuals at the dean's office level to stimulate, coordinate, and support KPU activities. This is almost a standard organizational pattern for the public doctoral institutions (24 of 26). If the deans' projections are accurate all will have such support within the next five years and 16 of the 24 that now maintain such positions will increase the F. T. E. assigned to these responsibilities. No dean in the public doctoral category reported a projected decrease.

This organizational pattern was used much less frequently by the private doctoral institutions--three of five in the research center group and three of eight among the other doctoral institutions. This situation is not likely to change according to the deans. Only one institution indicated a likelihood of adding such a position. Three projected an F. T. E. increase for such personnel, but two predicted a decrease.

The same pattern of difference in current practice and projections was true of the only other sub-groups that used this organizational arrangement with any frequency, i.e., the pre/in-service teacher education centers. The public institutions currently have such a designee in 13 of the 25 SCDEs. Six of the remaining 12 SCDEs anticipate adding such a position and eight institutions reported that they intend to increase the F. T. E. assigned to such duties. In contrast, only three of the 14 private institutions in this group currently have such an administrator, none indicated the likelihood of adding such a position, one noted a projected increase in time assigned to the position but one noted a decrease.

The future for this type of organizational arrangement seems easy to predict; more of the same. The position is currently concentrated in public institutions that offer graduate study. Deans of these SCDEs seem satisfied with the results and intend to increase the use of such personnel. Graduate level private institutions have not used such arrangements extensively in the past and do not intend to do so in the foreseeable future.

Laboratory and Demonstration Schools. Across the population of institutions such schools are maintained by 32 SCDEs (24 per cent). They were most popular among the public pre / in-service teacher education centers (12 of 25). Their ambiguous role in KPU productivity is illustrated by the fact that they are no more or less likely to be operated by doctoral level (23 per cent) or research center (25 per cent) institutions than by the general population of SCDEs. The future projections for such units are stable. Only three institutions indicated the likelihood of dropping laboratory schools; seven predicted expansion; six indicated that the emphasis of the unit would be altered. Laboratory or demonstration schools are relatively infrequent organizational units in SCDEs currently; are ambiguously related to KPU; and are unlikely to change in any significant way in the near future.

In-house Journals. Only 27 of the sample institutions (20 per cent) maintain in-house journals, newsletters, or occasional paper series in which faculty publish regularly. They are heavily concentrated in the doctoral level institutions (16) and the pre/ in-service teacher education centers (six). Only three deans reported that they intended to drop such publications and two of these were among the five which are operating outside the clusters noted above. In-house journals for faculty publications are concentrated in the graduate SCDEs and the deans indicated that they are likely to continue in those locations.

Faculty Personnel Policies. Table III-24 summarizes the deans' responses to queries about likely changes in (1) faculty load and (2) the emphasis likely to be placed on KP and KU involvement in tenure decisions in the future.

With the exception of the "B-Publics," where the deans also predicted a sizable increase in education faculty, more deans predicted an increase in instructional load than a decrease. The bulk of the deans in all institutional categories except the "A-Publics," however, anticipated that instructional loads will not change significantly. The prediction offered by the "A-Publics" is made more troublesome in relation to KPU productivity in these units by the fact that they are already more heavily involved in instruction than any of their doctoral level counterpart institutions.

TABLE III-24

PREDICTIONS BY SCDE DEANS OF CHANGES IN FACULTY POLICIES AFFECTING KPU[1]

Type	Control	Per Cent Predicting Faculty Load Changes						% Predicting Fut. Emphasis in Tenure Dec.			
		Instruction		Knowledge Production		Knowledge Utilization		Knowledge Production		Knowledge Utilization	
		Incr.	Decr.	Incr.	Decr.	Incr.	Decr.	Incr.	Decr.	Incr.	Decr.
A	Public	57.1	0.0	71.4	0.0	71.4	0.0	14.3	0.0	0.0	0.0
	Private	0.0	0.0	20.0	0.0	40.0	0.0	40.0	0.0	0.0	0.0
B	Public	5.3	31.6	63.1	0.0	63.1	0.0	47.4	0.0	42.1	0.0
	Private	0.0	0.0	75.0	0.0	62.5	0.0	37.5	0.0	25.0	0.0
C	Public	20.0	4.0	36.0	0.0	56.0	0.0	36.0	0.0	32.0	0.0
	Private	28.6	0.0	7.1	7.1	42.9	7.1	7.1	0.0	0.0	0.0
D	Public	12.5	12.5	75.0	0.0	75.0	0.0	62.5	12.5	50.0	0.0
	Private	0.0	0.0	28.6	0.0	42.9	0.0	14.3	0.0	28.6	0.0
E	Public	16.7	16.7	0.0	0.0	16.7	0.0	0.0	0.0	16.7	0.0
	Private	26.3	5.3	15.8	5.3	57.9	0.0	26.3	0.0	26.3	0.0
F	Public	16.7	0.0	50.0	16.7	50.0	0.0	16.7	0.0	16.7	0.0
	Private	18.2	0.0	18.2	9.1	36.4	0.0	18.9	9.1	18.2	9.1

[1] Responses predicting no change are not included in the table.

Almost no deans predicted a decrease in faculty involvement in either KP or KU. In most categories the number of deans predicting increases is very substantial.

The same overall pattern was reported for faculty evaluation. Almost no respondents projected a decreased emphasis on KPU in faculty evaluation. Even among the doctoral level institutions where KPU criteria are already applied universally in faculty evaluation, more emphasis on these criteria was predicted for the immediate future. This observation was affirmed by the RITE staff site visits where it was apparent that especially KP activity was currently being emphasized more rigorously in practice in evaluating non-tenured faculty even in instances where the policy was left unchanged.

General Resources for KPU. The deans predicted with near unanimity that the basic resources to support KPU in SCDEs will remain the same over the next five years. Only 13 respondents (9.6 per cent) indicated that they anticipated any increase in future budgetary provisions to support KPU. The only cluster of institutions that reflected any optimism is the public doctoral group in which two of the seven research center institutions and three others predicted an increase. But the deans were not reflecting pessimism, i.e., only eight (5.9 per cent) predicted a decrease in budgetary provisions for KPU. They simply guessed that the budget situation for KPU would remain stable.

The same picture was reflected when the deans were queried as to the likelihood that there would be an increase in faculty time available for KPU. Sixteen (11.9 per cent) thought it was likely; six of these 16 optimistic responses were in the 19 "B-Public" institutions. One of the research center institutions thought it was likely. In all, eight of the 16 positive responses were made by the 39 doctoral level institutions.

Barring external interventions, the deans of SCDEs would predict that budgetary provisions and faculty time for KPU will remain constant for the foreseeable future.

Faculty Activities in KPU

As might be anticipated from the responses in the foregoing categories, the deans were almost uniformly optimistic that the next five years would bring an increase in faculty activity in all KPU activity categories covered in the questionnaire."

Dissemination. Only two deans predicted a likely decrease in faculty productivity in dissemination activities; 68 predicted an increase. Institutional types in which 50 per cent or more of the deans foresaw an increase were "A-Publics," "B-Publics," "B-Privates," "C-Publics," "D-Publics," "D-Privates," and "F-Publics."

Research. Only one dean predicted a likely decrease in faculty productivity in research; 61 predicted an increase. In this instance the projected increases are concentrated in SCDEs already involved heavily in research activities. Ten of the 12 research center institutions predicted an increase. Twenty-four of the remaining 27 doctoral level institutions noted a likely increase. The only other institutional types with substantial numbers predicting increases were the "C-Publics" (10 of 25); "D-Publics" (seven of eight); and "D-Privates" (three of seven). In the baccalaureate level institutions, for example, only five of 42 projected an increase.

Development. Again, only one dean indicated that the level of development activity within the faculty will decrease; 69 estimated an increase.

Deans of research center institutions saw an increase in only four of 12 SCDEs. But the bulk of the other doctoral institutions projected an increase (20 of 27). Eleven of the 25 "B-Publics," seven of eight "D-Publics," and three of six "F-Publics" also predicted increases.

Service. Seventy-one deans predicted an increase in service activities. But the clusters of institutions noting increases are different than the preceeding activity clusters. The private doctoral institutions are not in the forefront (4 of 12). Public doctoral institutions, however, predicted increases in 19 of 26 instances. The "C-Publics" predicted likely increases (17 of 25) as did the "D-Publics" (six of eight) and "D-Privates." This is the activity chosen as most likely to expand among all the activities by the private baccalaureate colleges (11 of 30).

Graduate Training. The only institutions that anticipated more emphasis on training for KPU in their programs were the doctoral level SCDEs. Eight of the 12 research center institutions predicted an increase as did 15 of the 27 other doctoral level universities. Among the "C-Publics" six predicted an increase but five noted that they anticipated less emphasis on KPU training. Two of the "C-Privates" predicted more emphasis; three less emphasis. Four of the "D's" predicted more emphasis; three less.

Summary

On all counts the SCDE deans in the 135 sample institutions were more optimistic about the next five years in professional education than one might have guessed from analyzing recent demographic reports about teacher supply and demand and reading about the predicted general recession in higher education. They predicted:

1. Overall increases in enrollment in professional education

programs and SCDE faculty size. Apparently many education deans are of the opinion that SCDE enrollment has bottomed-out and budgetary and faculty cuts have already been made to adjust to that decline. One important exception should be noted, i.e., deans of private institutions are less optimistic on both counts and do predict declining enrollments and a stable to declining faculty size.

2. Little or no change is predicted in organization and support for KPU in SCDEs. The deans plan to continue to employ techniques that worked for them in the past and expand them as possible.

3. The deans foresee a likely increase in faculty load, more faculty productivity in KPU, and more emphasis on this productivity in evaluating faculty performance.

CHAPTER IV

FACULTY SELF-REPORT ON KNOWLEDGE PRODUCTION AND UTILIZATION ACTIVITIES IN SCHOOLS, COLLEGES, AND DEPARTMENTS OF EDUCATION

The study reported in this chapter was designed to elicit three types of information from selected faculty members in schools, colleges, and departments of education (SCDEs): (1) demographic data descriptive of the faculty population as a whole, (2) faculty perceptions about institutional missions, organizational arrangements, and activities and products relating to knowledge production and utilization (KPU),[1] and (3) projections of future mission and activity orientations, including some assessment of the impact of external factors impinging upon SCDEs currently.

Orientation to the Data

A questionnaire was sent to 2,915 education faculty members drawn at random from 131 of the 135[2] SCDEs which had earlier returned an institutional questionnaire.[3] SCDE deans or chairpersons were asked to return current rosters of faculty members when they responded to the institutional questionnaire, and these rosters were used as the basis for the sampling process. In general the following rules were used:

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[1] There is no generally satisfactory solution to the problem of defining KPU. Using a definition by exclusion, respondents were asked to concentrate on the functions and activities of faculty when they were not engaged in the regularized teaching program of the SCDE. KPU activities were described in general as including research and scholarly productivity; development, dissemination, and demonstration; ad hoc services to schools; and effecting change in schools or other educational agencies.

[2] Two institutions could not be utilized because the institutional respondents failed to provide a faculty roster; two others were eliminated because their rosters arrived too late to be usable.

[3] See Chapter III for a complete description of Institutional Questionnaire returns.

1. For institutions with regular, full-time faculties of fewer than 25 persons, all SCDE faculty were sent questionnaires.[1]

2. For institutions with SCDE faculties of 100 or more persons, 50 were selected at random to receive questionnaires.

3. For institutions with SCDE faculties ranging from 25 to 99 persons, a number to be sampled was determined from the formula,

$$N_s = 25 + \frac{1}{3}(N - 25),$$

where N_s is the sample size and N is the number of SCDE faculty; thus the minimum sample could be 25 and the maximum 49.

Institutional Types

Twelve institutional types were formed for use in reporting the data from this normative survey and are described in Table IV-1. Three variables were employed in constructing the types, i.e., degree level offered in education (doctoral, masters, baccalaureate); institutional control (public, private); and likely involvement in educational KPU (more likely, less likely). The identification and application of the first two variables is obvious. "A" and "B" institutions are doctoral level SCDEs; "C" and "D" types are masters level institutions; "E" and "F" have baccalaureate programs in education. Each is subsequently divided into public and private groups. The final distinction is less obvious. At the doctoral level, "A" and "B" type institutions were separated on the basis of previous empirical studies of involvement in R and D activities.[2] At the masters and baccalaureate levels, the distinction was made on the basis of

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[1] It should be noted that only full-time, regularly appointed education faculty members responded to the Faculty Questionnaire.

[2] A full discussion of the RITE category system is included as Appendix C.

TABLE IV-1

INSTITUTIONAL TYPES IN RELATION TO RITE CATEGORIES: NUMBER OF INSTITUTIONS BY TYPE IN POPULATION AND SAMPLE

Institutional Types	RITE Categories Included in Type[1]	Number of Institutions		Per Cent of Population in Sample
		Population[2]	Sample	
A. Research Center Inst.				
Public	1A1	23	7	30.4
Private	2A1	11	5	45.5
B. Other Inst. for Adv. Graduate Study				
Public	1A2, 1B, 1C, 1X	89	19	21.4
Private	2A2, 2B, 2C, 2X	40	8	20.0
C. Pre/In-Service Tchr. Education Centers				
Public	3A1, 3A2, 3A3	183	25	13.7
Private	5A1, 5A2, 5A3	75	14	18.7
D. Other Pre/In-Service Teacher Educ. Inst.				
Public	3B, 3C, 3X, 4A1-4X	101	8	7.9
Private	5B, 5C, 5X	203	7	3.5
E. Pre-Service Teacher Education Centers				
Public	6A1, 6A2, 6A3	32	6	18.8
Private	8A1, 8A2, 8A3	104	19	18.3
F. Other Pre-Service Teacher Educ. Inst.				
Public	6B, 6C, 6X, 7A1-7X	60	6	10.0
Private	8B, 8C, 8X	446	11	2.5
	Total	1,367	135	9.9

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[1] These are the hypothetical categories. In practice some were empty sets.

[2] School year 1974-75 (approved program lists of state directors of teacher certification--in the case of Nevada which does not maintain a program approval system, the teacher education institutions listed by the SEA were included).

several characteristics of the institutions, i.e., involvement with the national teacher education community (accreditation by the National Council for Accreditation of Teacher Education and membership in the American Association of Colleges for Teacher Education), size of SCDE faculty, size of student enrollment in education, percentage of all students at the institution who are enrolled in degree programs in education, and certain specialized information available on the SCDEs, e.g., special purpose orientation. These data were employed to distinguish between SCDEs that appeared to have a strong programmatic commitment to teacher education and those that did not. The assumption was made that this institutional commitment to teacher education as a field of study would likely be reflected in institutional involvement in KPU. Thus, the "C" type public masters institutions were (1) more homogeneous as an SCDE type and (2) predicted to be more involved in KPU than the "D" type public masters institutions.

As can be seen from Table IV-1, the 12 types were formed by grouping together 46 institutional categories that had been employed earlier in the study for sampling purposes and which constitute the RITE category system, a categorization which was designed to maximize institutional homogeneity within groups. The original category system was simply too cumbersome to retain for reporting purposes. It is, however, fully explicated for the interested reader in Appendix C.

Characteristics of the Sample

Following are observations relevant to the population and sample of respondents which are described in Table IV-2:

1. Faculty Questionnaires were sent to a total of 2,915 SCDE faculty members, comprising 8.6 per cent of the estimated total of 33,841 SCDE faculty personnel throughout the country.

TABLE IV-2

FACULTY QUESTIONNAIRE RESPONSES AS PER CENT OF NUMBER SENT AND OF TOTAL NUMBER OF FACULTY IN EACH INSTITUTIONAL TYPE

Institution		Faculty Questionnaires			Total Estimated Faculty[1]	Estimated Per Cent In Sample
Type	Control	Sent	Returned	Per Cent Returned		
A	Public	327	152	46.5	2,599	5.8
	Private	171	77	45.0	693	11.1
B	Public	744	372	50.0	8,781	4.2
	Private	179	72	40.2	875	8.2
C	Public	834	389	46.6	11,841	3.3
	Private	182	75	41.2	1,150	6.5
D	Public	202	107	53.0	3,210	3.3
	Private	47	23	48.9	1,353	1.7
E	Public	56	30	53.6	365	8.2
	Private	75	41	54.7	545	7.5
F	Public	62	29	46.8	442	6.6
	Private	36	20	55.6	1,987	1.0
Total		2,915	1,387	47.6	33,841	4.1

[1] See Chapter III for details on development of these estimates.

2. Return rates vary from 40.2 per cent to 55.6 per cent among the several institutional types "A" through "F." A total of 1,387 faculty responded (47.6 per cent of mail outs).

3. The number of faculty sampled taken as a percentage of the total estimated faculty in each institutional type varies from a low of 1.0 per cent for "F-Private" institutions to a high of 11.1 per cent for "A-Private" institutions. Overall, 4.1 per cent of the estimated total number of SCDE faculty members in the United States and territories responded.

The nature of the Faculty Questionnaire and of the approach taken with respondents may be judged from an examination of the questionnaire itself and the accompanying cover letter displayed in Appendix D[1]. Responses to the questionnaire items are summarized in this report, except for two items not included for logistical reasons: the institution awarding the highest degree (this information will be found in Chapter V), and the primary, secondary, and tertiary fields of specialization.

Before proceeding to the data summary, however, the reader should be alerted to several sources of bias in the data which affect generalizations that may be inferred from the responses:

1. The number of faculty respondents is less than one out of 20 of the 33,841 SCDE faculty members in the population.

2. The institutional sample, from which the faculty sample was in turn drawn, was chosen to over-represent institutions likely to be active in the area of knowledge production and utilization. So for example, a 30 per cent sample was drawn for those categories judged to be highest in probability of KPU productivity (RITE Categories 1A1, 1A2S, 1A20, 2A1, and 2A2; see Appendix C), but only a 10 per cent sample was drawn for those judged least likely to be productive (RITE Categories 3B, 5B, 6B, and 8B).

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[1] A copy of the questionnaire is attached to this paper.

Since many of the questionnaire items relate to KPU, it is reasonable to assume that the responses will be influenced positively by this bias.

3. The situation in (2) above is further exacerbated by the fact that differential sampling also took place within each RITE category. So for example, in no case were "X" level institutions included--this single act precluded a contribution to the data of 141 such institutions--10.3 per cent of the national total of 1,367 SCDEs.[1]

4. The number of institutions within an institutional category is small in some instances. The 11 "F-Private" institutions shown in Table IV-2 could hardly be argued as adequately representing the 446 SCDEs in that category even if there were no intra-category sampling problems. The five "A-Private" institutions represent 45 per cent of the total of 11 such institutions and there was no sampling complication involved, but the reliability of projections from this number of institutions is still suspect. One added institution in the "A-Private" category, for example, assumes the power of 16.7 per cent in the responses.

5. In most cases the returns were fairly well scattered over responding institutions, so that no single institution could be said to make a disproportionate contribution to the data for its category. The worst cases in this regard are the "E-Public" and "F-Public" types, within which a single institution made, respectively, 14 of 30 and 14 of 29 responses.

6. No adjustment has been made for differential returns among the RITE Categories that were combined into the categories presently in use and as reported in Table IV-2. However, the authors remained aware

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[1] "X" category institutions were those judged to have, for practical purposes, zero probability of KPU involvement.

of this problem and in general have reported intra-type differences when they occurred in an actual case.

Demographic Characteristics of the Sample

General demographic characteristics of the faculty sample as probed by the Faculty Questionnaire are displayed in Tables IV-3, IV-4, IV-5, and IV-8.

Degrees Held

The relevant data are shown in Table IV-3. The doctorate is, overwhelmingly, the terminal degree reported by the respondents. Faculty whose terminal degree is the baccalaureate are virtually non-existent, and holders of other degrees (e.g., the specialist degree) exceed 10 per cent in only one instance ("F-Public").

Variations at the masters degree level are especially interesting. Among doctoral level institutions public universities appear to number more faculty with masters degrees than do private universities. But in no case is the percentage as high as 11. For institutions below the doctoral level, however, the proportion of faculty with masters degrees is never lower than 10 per cent, and except for Category "F," private institutions typically number a greater percentage of such degree holders than do the public institutions. If one assumes that possession of a doctorate implies at least some training in and familiarity with KPU methodologies, large numbers of faculty members at the non-doctoral institutions must be assumed not to have had this background of training in KPU. Of particular interest here is the "C-Public" category which, it may be assumed, has higher levels of aspiration toward becoming KPU-prominent than do other non-doctoral types. Of the estimated 11,841 faculty in this type, 15.7 per cent or *circa* 1,860 faculty members, have not had regularized academic

TABLE IV-3

HIGHEST DEGREE ATTAINED, AND SOURCE OF HIGHEST DEGREE FOR SCDE FACULTY

Type	Control	Per Cent of Faculty at Each Degree Level					Source of Highest Degree		
		Bac.	Masters	Doctors	Other	Unknown	Non-SCDE	SCDE	Unknown
A	Public	0.0	7.2	92.8	0.0	0.0	14.5	82.9	2.6
	Private	0.0	3.9	96.1	0.0	0.0	29.9	70.1	0.0
B	Public	0.3	10.8	86.3	2.2	0.5	8.3	90.3	1.3
	Private	0.0	1.4	95.8	2.8	0.0	13.9	84.7	1.4
C	Public	0.3	15.7	77.6	6.2	0.3	13.6	85.6	0.7
	Private	0.0	22.6	69.3	8.0	0.0	17.3	81.3	1.3
D	Public	0.0	14.0	83.2	2.8	0.0	14.0	86.0	0.0
	Private	0.0	17.4	73.9	8.8	0.0	0.0	100.0	0.0
E	Public	0.0	10.0	86.7	3.3	0.0	6.7	90.0	3.3
	Private	0.0	29.3	65.9	4.9	0.0	19.5	80.5	0.0
F	Public	0.0	20.7	62.1	13.8	3.4	10.3	86.2	3.4
	Private	0.0	10.0	90.0	0.0	0.0	0.0	100.0	0.0
All Faculty[1] U.S. Univ. 1972-73		5.1	30.8	44.5	9.4	10.3	N.A.	N.A.	N.A.
All Faculty[1] U.S. 4-Yr Col. 1972-73		3.2	47.0	37.0	5.4	7.3	N.A.	N.A.	N.A.

[1] Source: The Condition of Education, (NCES, DHEW, U.S. Government Printing Office: Washington), 1975 p. 115.

training in KPU at the doctoral level.

The bottom two rows of Table IV-3 provide contrastive data with faculty from all colleges and universities in the United States. These data are for 1972-73, three years earlier than the data from this study and hence not entirely comparable; nevertheless they do provide some insight into the difference between SCDEs and other academic units. In general, SCDE personnel are considerably more likely to hold the doctorate and less likely to hold either the baccalaureate or the masters degree than is true of either universities or 4-year colleges. SCDE personnel as a whole are trained at a higher degree level than their academic counterparts in other departments.

These data are especially surprising in view of the general sterotype held by many academics of SCDE personnel as conceptually weak and heavily practitioner oriented. More SCDE personnel than their counterparts have sought out higher level training and have presumably, as a consequence, been exposed to an R and D orientation in their graduate studies. Yet it is difficult to argue the general position that SCDE personnel are unusually high in R and D productivity either on the basis of the yield studies conducted by the RITE project staff or previous studies of R and D in SCDEs. This does raise nagging questions about the KP orientation of advanced graduate training programs in SCDEs.

Turning now to the matter of sources of degrees, i.e., whether they are granted by SCDEs or departments other than SCDEs, note in Table IV-3 that the large majority of SCDE faculty have received their terminal degree from other SCDEs. The values range from 70.1 per cent ("A-Private") to 100 per cent ("D-Private"). The variation of greatest intrinsic significance occurs in the "A" category, in which private institutions out-weighed public institutions in the proportion of non-SCDE degree holders whom they employ. It seems likely that this variation stems from the fact that "A-Private" institutions rely more on inter-departmental appointments than do other institutions, an observation supported by project staff experience during site visits. Cross-fertilization and more adequate utilization of scarce resources across a variety of related departments seem to be more visible issues on large private campuses than on public ones.

Experience

Table IV-4 displays the number of years experience for SCDE faculty by institutional type. The mean number of years of experience ranges from just below six ("F-Private") to over 13 ("A-Public"). Doctoral level institutions had the most experienced personnel, followed in turn by masters level and then baccalaureate level SCDEs.

At most colleges and universities throughout the United States first promotion decisions are made at the end of the first three years of service, and tenure decisions during the fifth or sixth years to commence with the seventh year. It is of special interest to examine the experience distribution to determine the proportion of faculty for whom these important personnel decisions remain to be made. Looking at promotion, it is surprising to note that no institutional type has more than 20 per cent of its faculty below this three-year experience level, and in four cases, less than 10 per cent have accumulated fewer than three years of experience. Nevertheless substantial absolute numbers must still undergo this first step in the promotion process. Similarly, all institutional types had more than 20 per cent of faculty with fewer than seven years experience and seven categories had 30 per cent or more of faculty in that situation. Again the

TABLE IV-4

NUMBER OF YEARS EXPERIENCE OF SCDE FACULTY IN A COLLEGE OR UNIVERSITY

Type	Control	Per Cent in Each Experience Category						Mean Number Years of Experience
		1-3	4-6	7-10	11-25	26 +	Unknown	
A	Public	6.0	15.1	23.1	42.7	11.3	2.0	13.67
	Private	10.4	19.5	19.5	40.3	9.1	1.3	12.78
B	Public	10.2	17.7	28.0	34.9	5.9	3.2	11.35
	Private	11.1	18.1	25.0	86.1	8.3	1.4	11.67
C	Public	6.9	15.4	32.4	35.0	6.4	3.9	11.86
	Private	16.0	25.3	20.0	30.7	4.0	4.0	10.13
D	Public	8.4	27.1	32.7	25.2	1.9	4.7	9.05
	Private	17.4	26.1	21.7	30.4	0.0	4.4	8.86
E	Public	6.7	23.3	36.7	26.7	6.7	0.0	11.00
	Private	17.0	19.5	22.0	36.6	2.4	2.4	9.78
F	Public	17.2	27.6	20.7	27.6	0.0	6.9	7.97
	Private	20.0	50.0	15.0	10.0	0.0	5.0	5.89

absolute numbers of persons still not on tenure is large. Given the increased emphasis on KPU as a criteron for both promotion and tenure (see section on faculty evaluation, below), one must assume that these nontenured and lower-ranked faculty will have more than typical motivation to engage in KPU and thus might prove to be a receptive audience toward whom KPU improvement programs might be directed.

Rank and Tenure

Data relating to rank and tenure status are shown in Table IV-5. So far as rank is concerned, most SCDEs have a large proportion of senior professors. The rank of instructor has fallen into virtual disuse while the number of named professors, full professors, and associate professors greatly exceeds the number of assistant professors. With the exception of the "F-Private" category, all institutional types have a majority of their faculties in the upper ranks, as shown in Table IV-6. In general, the proportion of upper-rank faculty is higher for public than private institutions, type for type.

The relatively small number of junior faculty gives some cause for concern. If one wishes to change SCDE productivity in educational KPU, and if one assumes that changes are possible more quickly through junior than senior faculty, the target audience for change is considerably constrained. Programs aimed at reorienting younger faculty members to a career in KPU by providing seed money and/or funds for additional KPU training cannot influence the large majority of KPU faculty and hence will have considerably diminished impact, particularly in public institutions.

The tenure situation is similar. In general, the majority of faculty are already tenured, a situation that leaves the institution very little staffing flexibility. An interesting exception is the "F-Private" category,

TABLE IV-5

RANK AND TENURE STATUS OF SCDE FACULTY

Type	Control	Per Cent at Each Rank							Per Cent with Tenure		
		Named Prof.	Prof.	Assoc. Prof.	Assis. Prof.	Inst.	Other	Unknown	Yes	No	Unknown
A	Public	1.3	46.7	29.6	19.1	2.0	1.4	0.0	78.9	21.1	0.0
	Private	6.5	26.0	37.7	24.7	1.3	3.9	0.0	59.7	40.3	0.0
B	Public	0.3	33.9	31.7	23.9	5.1	4.6	0.5	64.0	34.7	1.3
	Private	1.4	34.7	22.2	41.7	0.0	0.0	0.0	59.7	40.3	0.0
C	Public	0.3	37.0	32.1	25.2	3.9	1.5	0.0	80.5	19.5	0.0
	Private	0.0	22.7	33.3	26.7	1.3	16.0	0.0	48.0	41.3	10.7
D	Public	0.9	16.8	43.9	29.9	4.7	3.7	0.0	56.1	43.9	0.0
	Private	0.0	13.0	34.8	47.8	4.4	0.0	0.0	0.0	47.8	52.2
E	Public	0.0	56.7	26.7	13.3	3.3	0.0	0.0	70.0	26.7	3.3
	Private	0.0	24.4	34.1	39.0	2.4	0.0	0.0	61.0	39.0	0.0
F	Public	0.0	27.6	24.1	34.5	10.3	3.4	0.0	51.7	48.3	0.0
	Private	0.0	15.0	25.0	60.0	0.0	0.0	0.0	5.0	95.0	0.0
Universities[1] 1974-75		N.A.	28.6	27.3	31.9	10.0	2.2	N.A.	N.A.	N.A.	N.A.
4-Yr Colleges[1] 1974-75		N.A.	21.3	26.7	36.9	13.1	2.1	N.A.	N.A.	N.A.	N.A.
All Institutions[2]		N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	46.8	53.2	N.A.

[1] Source: Yearbook of Higher Education 1975-76 (Marquis Academic Media: Chicago) 1975, p. 712.

[2] Source: Ibid., p. 715.

TABLE IV-6

PROPORTION OF SCDE FACULTY AT UPPER RANKS[1]

Type	Control	Per Cent
A	Public	77.6
	Private	70.2
B	Public	65.9
	Private	58.3
C	Public	69.4
	Private	56.0
D	Public	61.6
	Private	47.8
E	Public	83.4
	Private	58.5
F	Public	51.7
	Private	40.0

[1] Named professor, professor, and associate professor.

in which only five per cent of respondents indicated that they are tenured. Public doctoral and masters level institutions seem to be most out of balance on this criterion, with the "A-Public" group having 78.9 per cent and the "C-Public" group 80.5 per cent already tenured.

The last three rows of Table IV-5 provide selected comparative rank and tenure data. In the case of rank, percentages of faculty members of universities and four-year colleges at each rank are given; while in the case of tenure, the percentage of faculty members at all institutions (excluding two-year institutions) is shown. With respect to the rank distribution, SCDEs are not dissimilar to their faculty colleagues elsewhere but there is a tendency to be higher at senior ranks and lower at junior ranks. With respect to tenure, SCDE personnel are considerably more likely to have attained this status. Only in the "F-Private" category is the proportion of tenured faculty less in an SCDE institutional type than in institutions of higher education generally. Whatever staffing inflexibilities are produced by high tenure ratios are exacerbated in SCDEs; again the prospects for viable changes with respect to KPU are diminished.

An interesting comparison can be drawn between the proportion of faculty at upper ranks (Table IV-6) and the proportion on tenure (Table IV-5). While institutions may as a general rule be overbalanced on both tenure and upper rank personnel, it is not the case that all upper professorial staff are tenured. The differences are shown in Table IV-7.

TABLE IV-7

COMPARISON OF PROPORTION OF SCDE FACULTY AT UPPER RANKS AND ON TENURE

Type	Control	Proportion of SCDE Faculty		
		At Upper Ranks (1)	On Tenure (2)	Difference (1) - (2)
A	Public	77.6	78.9	-1.3
	Private	70.2	59.7	10.5
B	Public	65.9	64.0	1.9
	Private	58.3	59.7	-1.4
C	Public	69.4	80.5	-11.1
	Private	56.0	48.0	8.0
D	Public	61.6	56.1	5.5
	Private	47.8	47.8	0.0
E	Public	83.4	70.0	13.4
	Private	58.5	61.0	-2.5

Continued

TABLE IV-7--Concluded

Type	Control	Proportion of SCDE Faculty		
		At Upper Ranks (1)	On Tenure (2)	Difference (1) - (2)
F	Public	51.7	51.7	0.0
	Private	40.0	5.0	35.0

In eight of the twelve sub-categories the number of personnel in the upper ranks exceeds the number on tenure, indicating that some proportion of upper rank personnel is not yet tenured. In the "F-Private" category the proportion is very large--35 per cent.

Teaching Level and Load

Table IV-8 displays data concerning the primary teaching level (graduate, undergraduate, or both) and the number of different courses taught per academic period by SCDE faculty.

The proportion of time spent in instruction at graduate versus undergraduate levels is, unsurprisingly, a function of the degree level of the institution. Category "E" and "F" institutions do not offer graduate degrees, and hence do not teach graduate students except in those rare instances in which an institution may offer selected graduate credit courses without offering the concomitant degree program. At the master level institutions, the proportion of instruction of undergraduate level students only is about one-third or less, while at the doctoral level it ranges from slightly less than one-fourth to practically none in the "A-Privates." Faculty in doctoral level institutions are not likely to spend their time about equally divided between graduate and undergraduate levels; only in the case of "B-Public" institutions is the proportion

TABLE IV-8

PRIMARY TEACHING LEVEL AND NUMBER OF DIFFERENT COURSES TAUGHT PER ACADEMIC TERM BY SCDE FACULTY

Type	Control	Per Cent at Each Teaching Level				Number of Different Courses Taught Per Academic Period				
		Under-grad	Grad	Equally Divided	Unknown	1	2	3	4 or More	Unknown
A	Public	13.2	64.5	20.4	2.0	21.1	48.0	22.4	6.6	2.0
	Private	3.9	74.0	22.1	0.0	26.0	41.6	24.7	7.8	0.0
B	Public	24.2	45.4	29.0	1.3	15.6	34.7	38.2	9.9	1.6
	Private	6.9	76.4	15.3	1.4	5.6	23.6	59.7	9.7	1.4
C	Public	39.6	25.4	34.2	0.8	8.7	36.2	34.7	17.2	3.1
	Private	32.0	37.3	30.7	0.0	16.0	25.3	40.0	18.7	0.0
D	Public	28.0	24.3	47.7	0.0	4.7	31.8	43.9	18.7	0.9
	Private	21.7	30.4	47.8	0.0	0.0	26.1	47.8	26.1	0.0
E	Public	100.0	0.0	0.0	0.0	0.0	46.7	30.0	20.0	3.3
	Private	95.1	4.9	0.0	0.0	2.4	34.1	46.3	17.1	0.0
F	Public	86.2	0.0	10.3	3.4	6.9	34.5	27.6	27.6	3.4
	Private	100.0	0.0	0.0	0.0	5.0	20.0	65.0	10.0	0.0

of faculty spending their time exclusively at the graduate level less than 50 per cent, and even in that case the proportion is quite high (45.4 per cent).

The data in Table IV-8 in regard to teaching load are concerned with the number of different courses, rather than sections of courses, which are taught during a typical academic term--semester, quarter, trimester. As might be anticipated, there is a sharp disparity among institutional types on this dimension, with the research center institutions ("A") apparently requiring only one course per term from a fifth or more of their faculty. Generally a three-course load would seem to be most typical, but four course loads are certainly not uncommon. Several observations seem appropriate:

1. There is an almost direct progression from "A-Public" to "F-Private" institutions in course load. Faculties of smaller, lower-degree granting institutions clearly carry what would by any definition be termed full teaching loads; time allocated by the institution for KPU is virtually non-existent. Efforts to improve the KPU productivity of these institutions must fail unless concomitant steps are taken to free-up faculty from these full time instructional responsibilities.

2. The "B-Private" faculties carry a particularly heavy instructional load among the doctoral institutions. Almost 70 per cent of their faculty members reported carrying three or four different courses per academic period. On the assumption that this particular institutional type would be a likely target for improvement in at least KP activity, this instructional load pattern represents a difficult problem to be overcome before these faculty could be expected to markedly alter their time allocations to research activity.

3. There are substantial faculty load variations even within institutional types, i.e., every type has at least some institutions in which faculty carry a four-course load. This disparity must be particularly difficult for those faculty at KPU oriented institutions whose reward system is based heavily on KPU productivity. Their instructional expectation is clearly out of step with the activities that have payoff in terms of promotion and tenure. Alienation and conflict must be the inevitable result for these faculty.

Summary

The data of the preceeding section describe the typical SCDE faculty member as (1) holding a doctoral degree (in greater proportion than his academic colleagues from other departments): (2) holding a higher rather than a lower academic rank, and being on tenure: (3) having about a dozen years of experience if employed by a doctoral institution but perhaps only six to 10 years if employed by a non-doctoral institution; (4) teaching primarily graduate students (unless employed by a baccalaureate level institution); and, (5) carrying a three or four course load per academic period. From the point of view of the planner attempting to devise means for increasing KPU productivity in SCDEs, this situation is none too heartening. The majority of SCDE faculty have already received the doctoral degree so that the possibility of additional training is minimal; SCDE faculties are comprised of higher ranking tenured personnel so that the impact of the reward system on them is lessened and staffing flexibility is decreased; the proportion of faculty in SCDEs who still must confront promotion and tenure decisions are relatively small (although the numbers are absolutely still large); and teaching loads are heavy so that time allocated by the institution to the faculty member for KPU is minimal.

Institutional Missions

A series of questions was asked with respect to the variety of mission areas which an SCDE might conceivably undertake, including (1) teaching and instruction; (2) research and scholarly productivity; (3) development, dissemination, and demonstration (including the design and preparation of generalizable instructional materials such as textbooks, audiovisuals, workbooks, etc.; of teaching techniques, administrative patterns, and other novel concepts, practices, or artifacts; dissemination of information about or demonstration of any of the foregoing to a wide range of potential adopters; or evaluation of any of the foregoing), commonly abbreviated D, D, and D; (4) ad hoc services to schools and other educational agencies; and (5) effecting change in schools or other educational agencies (including needs assessments, assistance in selecting new programs or practices responsive to local needs, retraining of faculty and staff as required by newly installed innovations, demonstrating new approaches that are under consideration for adoption, servicing and nurturing newly installed programs).

Perceived Importance of Mission Areas

The relevant data are shown in the left half of Table IV-9. Several observations may be made with respect to the importance which the respondents indicated were attached to these missions by their SCDEs.

First and foremost, instruction and teaching are perceived as the prime mission in SCDEs; in all but one instance, 65 per cent or more of the respondents described this mission area as of central importance. Only in the case of the "A-Private" institutions did fewer than two-thirds of the faculty indicate that teaching was central to the SCDE mission. At the masters level and below, instruction is described as of central importance "almost always" in all but the "D-Public" category.

TABLE IV-9

PERCEIVED IMPORTANCE OF AND REPORTED FACULTY INVOLVEMENT IN CURRENT SCDE MISSIONS[1]

Type	Control	Current Importance of Missions in Respondent's SCDE					Current Involvement of Respondent in SCDE Missions				
		Teaching and Instruction	Research	D, D and D	*Ad Hoc* Services	Effecting Change	Teaching and Instruction	Research	D, D and D	*Ad Hoc* Services	Effecting Change
A	Public	2	4	5	4	5	2	5	5	5	5
	Private	4	2	6	5	5	3	3	5	5	5
B	Public	2	5	5	5	5	2	5	5	5	5
	Private	2	5	6	5	5	2	4	5	5	5
C	Public	1	6	5	5	5	2	5	5	5	5
	Private	1	6	6	5	5	2	5	5	5	5
D	Public	2	5	6	5	5	1	5	5	5	5
	Private	1	5	6	6	6	1	5	5	6	6
E	Public	1	6	5	6	5	1	6	5	5	5
	Private	1	6	6	5	5	1	6	5	5	5
F	Public	1	6	6	5	6	1	6	6	5	5
	Private	1	6	6	6	6	1	5	6	6	6

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[1] Cell entries depict percentage categories of respondents who indicated "central" importance and "heavy" involvement.

Table Code:
- 1--Almost Always (90-100 per cent)
- 2--Frequent (65-89 per cent)
- 3--More Typical (50-64 per cent)
- 4--Less Typical (35-49 per cent)
- 5--Infrequent (10-34 per cent)
- 6--Never or Almost Never (0-9 per cent)

Second, research is perceived by a significant number of the faculty as of central importance only in the research center institutions, i.e., the "A-Public" and "A-Private" institutions. Even here, however, the public doctoral institutions ("A") did not have a majority of their faculty ascribing centrality to the research mission; fewer than 50 per cent gave it this status.

Third, all other mission areas (and research as well in all but "A" institutions) achieve central status in the eyes of a minority of faculty, usually a small minority. In only one case (service, in the "A-Public" institutions) did even a third of the faculty describe one of these remaining functions as central.

SCDEs are instructional centers. In only a few instances are they research centers as well. In no instance can they be described as D, D and D, service, or change centers. Individual institutions, of course, could be cited as exceptions to this generalization, but the overall picture is unambiguous.

Faculty Involvement in Mission Areas

Respondents were asked to report on their own involvement in the several mission areas, and these responses are displayed in the right hand half of Table IV-9, which is of interest both for its own sake and in contrast to ascriptions of institutional importance as noted above.

The involvement reports are not substantially different from the importance ratings. Teaching and instruction is again far and away the most heavily involved mission area, even in the research center institutions. Interestingly, these research center faculty members did not report as much involvement in research as they reported priority on research as an organizational mission. Thus, the "four" and "two" ratings given research by "A-Public" and "A-Private" faculties when describing institutional commitment became "five" and "three" ratings when these same faculties described their own involvement.

Of some interest is the modest but persistent upswing in involvement noted with respect to D, D, and D. In every category for which there is a change between the institutional priority and personal involvement ratings, the change is in favor of greater personal involvement. There may be more faculty interest in or personal commitment to D, D, and D than one would guess from studying institutional mission commitments; this factor may be worth taking into consideration in any future plans relating to these activities. By contrast, there is almost no shift in the other two "neglected" areas: ad hoc services and effecting change.

Assessment of SCDE Environment in Support of Missions

The percentage of respondents rating the SCDE environment as "good" (nurturant) in relation to each mission area is shown in Table IV-10, as is the rank order of the percentages by institutional categories.

The large majority of respondents regard their SCDEs as good environments for carrying out the instructional mission. The baccalaureate level respondents were most inclined in this direction with percentages typically in the 90's. In terms of relative rank, the goodness of the environment for instruction ranked first in every category except "A-Private;" these institutions, as was noted in Table IV-9, tend to regard research as the most important mission. This tendency is confirmed here.

The doctoral institutions ("A" and "B") ranked their environments as second best for research, while all other types of institutions selected service as being second best. SCDEs that do not engage in research tend to see themselves as service institutions, and as has often been observed,

TABLE IV-10

FACULTY ASSESSMENT OF SCDE ENVIRONMENT IN SUPPORT OF PRIMARY MISSION AREAS

Type	Control	Per Cent Rating Environment as "Good" in Each Mission Area					Relative Rank of Environment Provided by the SCDE				
		Teaching Instruction	Research	D, D and D	*Ad Hoc* Services	Effecting Change	Teaching Instruction	Research	D, D and D	*Ad Hoc* Services	Effecting Change
A	Public	88.8	67.1	53.9	59.9	42.8	1	2	4	3	5
	Private	68.8	81.8	45.5	45.5	36.4	2	1	3.5	3.5	5
B	Public	85.2	63.2	47.0	62.9	40.0	1	2	5	3	4
	Private	75.0	62.5	34.7	45.8	31.9	1	2	4	3	5
C	Public	87.4	34.2	46.8	60.7	45.8	1	5	3	2	4
	Private	84.0	42.7	45.3	60.0	36.0	1	4	5	2	3
D	Public	81.3	40.2	24.3	54.2	34.6	1	3	5	2	4
	Private	91.3	34.8	34.8	60.9	26.1	1	3.5	3.5	2	5
E	Public	96.7	40.0	50.0	60.0	46.7	1	5	3	2	4
	Private	95.1	29.3	31.7	56.1	34.1	1	5	4	2	3
F	Public	93.1	31.0	51.7	72.4	41.4	1	5	3	2	4
	Private	80.0	30.0	40.0	40.0	20.0	1	4	2.5	2.5	5

a culture supportive of scholarly inquiry is not simultaneously supportive of client centered ad hoc service.

The remaining two missions were not as well supported in the typical SCDE, of whatever sort. The sum of ranks is, respectively, 45.5 and 51 for D, D and D and effecting change, in contrast to 29 for service and 13 for teaching and instruction (research occupies an intermediate position at 41.5). No category of institutions seems to have staked out either of these two missions as uniquely its own.

Perceptions of General SCDE/IHE[1] Support for KPU

Faculty perceived their colleges and universities as taking widely varying postures with respect to the support they are willing to give to knowledge production and utilization, i.e., all missions other than the basic mission of teaching and instruction. Respondents were asked to rate their own college/university on a six point scale ranging from "1--disclaims interest" through several intermediate positions (mild encouragement, permissiveness, stimulation, expectation) to "6--approves, supports." The latter position was intended to indicate an institution which set strong expectations for faculty KPU activity and made a substantial investment of institutional resources to support such activity.

Responses to the scale are shown in Table IV-11. The data can be most easily interpreted by reference to the columns indicating means and ranks of means. There is a more or less steady progression downward in institutional support perceived by respondents as one moves from doctoral through masters to baccalaureate institutions--a response certainly to be expected. The sum of ranks is most compelling. For doctoral institutions it is 10 (2 + 1 + 3 + 4), for masters level institutions 29, and for bac-

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[1] That is, "Institution of Higher Education."

TABLE IV-11

SCDE FACULTY PERCEPTION OF SUPPORT POSTURE ASSUMED BY COLLEGES AND UNIVERSITIES TOWARD KPU MISSIONS

Type	Control	Per Cent Making Each Response							Mean	Rank of Mean
		1 Disclaims Interest	2 Mild Encouragement	3 Approves-Permits	4 Approves-Stimulates	5 Approves-Expects	6 Approves-Supports	No Answer		
A	Public	0.0	4.6	23.0	24.3	19.7	27.0	1.3	4.42	2
	Private	2.6	3.9	10.4	27.3	35.1	16.9	3.9	4.45	1
B	Public	0.3	14.8	24.5	30.9	11.3	15.1	3.2	3.86	3
	Private	1.4	9.7	26.4	36.1	11.1	8.3	6.9	3.76	4
C	Public	3.3	26.5	26.5	28.0	6.7	5.9	3.1	3.27	7
	Private	2.7	26.7	25.3	36.0	2.7	5.3	1.3	3.26	8
D	Public	0.9	14.1	32.7	32.7	14.0	5.6	0.0	3.61	5
	Private	4.4	21.7	47.8	17.4	8.7	0.0	0.0	3.04	9
E	Public	10.0	16.7	20.0	40.0	6.7	6.7	0.0	3.37	6
	Private	7.3	46.3	31.7	9.8	0.0	0.0	4.9	2.46	12
F	Public	3.4	31.0	44.8	13.8	3.4	0.0	3.4	2.82	10
	Private	15.0	40.0	25.0	10.0	5.0	5.0	0.0	2.65	11

calaureate level institutions 39. These data tend to support the earlier data showing that teaching and instruction is perceived as the primary mission in all levels of institutions but particularly at the masters and baccalaureate levels.

Not even the research center institutions are much beyond the center of the scale, on the average: the highest mean appearing in the table is 4.45 for "A-Private" followed closely by 4.42 for "A-Public." In the opinion of the faculty, there is considerable room for improving institutional support even among those institutions that currently pride themselves on a strong KPU posture. Conversely, there appear to be few faculty members, even among baccalaureate level institutions, willing to ascribe a complete disclaimer of support to their own institutions. The largest such percentage is 15.0 ("F-Private"); all others are no higher than 10 per cent. This is consistent with the evidence gained through the institutional questionnaire that KPU activity (especially KP activity) is held in such high status in IHEs/SCDEs that almost no one will enter a disclaimer about involvement in the area.

Sources of Colleagueship in Support of Missions

Of the variety of sources of colleagueship in support of KPU to which an SCDE faculty member might turn, which were included in the Faculty Questionnaire, only four proved sufficiently interesting to warrant tabulating, i.e., other SCDE faculty, other faculty in the respondent's institution of higher education (IHE), "invisible colleges" of faculty in cognate areas at other IHEs, and national professional associations. A simplified version of the data is shown in Table IV-12, which indicates for each of the five mission areas the primary and secondary sources of colleagueship indicated by the respondents.

TABLE IV-12

PRIMARY AND SECONDARY SOURCES/COLLEAGUESHIP IN THE FIVE MISSION AREAS REPORTED BY SCDE FACULTY

Type	Control	Areas of Faculty Activity									
		Teaching and Instruction		Research		D, D and D		Ad Hoc Services to Schools		Effecting Change	
		Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
A	Public	1	2	1	2	1	4	1	3	1	3
	Private	1	2,3	1	2	1	3	1	3	1	3
B	Public	1	2	1	2	1	2	1	2	1	2
	Private	1	2	1	2,3	1	2	1	3	1	3
C	Public	1	2,3	1	2	1	2	1	2	1	3
	Private	1	2	1	2	1	3	1	3	1	3
D	Public	1	2	1	2	1	2	1	2	1	2
	Private	1	2	1	2	1	2	1	2	1	4
E	Public	1	2	1	2	1	2	1	2,4	1	2,3
	Private	1	2	1	4	1	2	1	4	1	2
F	Public	1	2	1	2	1	2	1	2	1	2
	Private	1	2	1	2	1	2	1	2	1	2

Table Code:
1--SCDE Faculty
2--Other IHE Faculty
3--Invisible Colleges
4--National Professional Associations

As one might expect, the primary source of colleagueship in all KPU mission areas was fellow SCDE faculty members; and other IHE faculty are a strong secondary source across the board.

Only in the areas of ad hoc services and effecting change do invisible colleges and professional associations become important sources. Invisible colleges seem to be preferred by doctoral level institutions: nine of the 15 citations of 3's in the table are made by them, while five of the remaining six citations come from masters level institutions. On the other hand, most citations of professional associations come from "D-Private" and "E" institutions. The SCDE faculty respondents indicated that neither invisible colleges nor professional associations had much influence in generating supportive colleagueship, and when they did it was with respect to the mission areas perceived as less important.

Summary

Teaching and instruction is the prime mission of SCDEs, with research occupying a position of approximately equal stature only in the research center institutions ("A"). Other mission areas are perceived by faculty as not central to SCDEs. So far as goodness of environment is concerned, teaching and instruction is well nurtured in all institutions, while research is nurtured essentially in doctoral institutions and service in all other types. D, D and D and effecting change were not perceived as well supported in any institutional type. KPU activities generally receive only medium high support even in the most KPU oriented institutions; on the other hand, even the least KPU oriented institutions were perceived by their faculty as providing some support. Colleagueship in all mission areas seems to be derived almost exclusively from the support that SCDE faculty provide one another.

This situation does not afford the planner much opportunity to be sanguine about increasing KPU productivity. To do so obviously requires mission reorientation in the bulk of institutions, even to some extent in the public doctoral institutions ("A-Public"). That reorientation must be particularly great with respect to D, D and D, ad hoc services, and effecting change. These areas simply do not loom large in the typical SCDE. Finally, colleagueship channels as they exist do not seem to provide especially good avenues through which a change agent might work. But there is some hope; all faculty perceived some support for KPU at their institutions, and unless that perception is entirely wishful thinking or status seeking it is conceivable that this support could furnish a useful base for new KPU ventures.

The Use of Faculty Evaluation in Support of SCDE Missions

Emphasis can be placed on a faculty member's performance in one or another mission area as the basis for making promotion/tenure decisions, and presumably, institutions will weight higher priority mission areas differentially for this purpose. Respondents were asked to indicate for each of the five mission areas the weight placed upon the mission in making promotion and tenure decisions by using a three-point code: "essential," "helpful," and "not considered." The percentage of respondents labeling each mission area as "essential" for promotion and tenure is coded in Table IV-13.

The first observation is that D, D and D, ad hoc services to schools, and effecting change are not considered essential for promotion and tenure by a significant number of faculty in any institutional type. Faculty evaluations for promotion and tenure are seldom geared to an assessment of KPU activity other than research.

TABLE IV-13

PERCEPTIONS HELD BY SCDE FACULTY OF WEIGHT PLACED ON MISSION AREAS IN PROMOTION AND TENURE DECISIONS[1]

Type	Control	Teaching and Instruction		Research		D, D and D		*Ad Hoc* Services to Schools		Effecting Change	
		Promotion	Tenure	Promotion	Tenure	Promotion	Tenure	Promotion	Tenure	Promotion	Tenure
A	Public	4	3	2	2	5	5	5	6	6	6
	Private	5	5	1	1	5	5	6	6	6	6
B	Public	3	3	3	3	5	6	5	6	5	6
	Private	4	3	2	2	6	6	6	6	6	6
C	Public	2	2	4	5	6	6	5	5	6	6
	Private	2	2	5	5	6	6	5	5	6	6
D	Public	2	2	4	4	6	6	5	5	5	5
	Private	2	2	4	5	6	6	6	6	6	6
E	Public	2	1	5	5	6	5	5	5	6	6
	Private	2	2	6	6	5	6	6	6	6	6
F	Public	2	1	5	6	6	5	6	6	6	6
	Private	2	2	5	5	6	6	6	6	6	6

[1] Cell entries depict percentage categories of respondents who indicated mission area as "essential" to promotion or tenure."

Table Code:
1--Almost Always (90-100 per cent)
2--Frequent (65-89 per cent)
3--More Typical (50-64 per cent)
4--Less Typical (35-49 per cent)
5--Infrequent (10-34 per cent)
6--Never or Almost Never (0-9 per cent)

Teaching and instruction, on the other hand, is generally given considerably more weight in the opinion of the faculty respondents. In no case was teaching and instruction ever rated lower than "2" at masters or baccalaureate level institutions. At doctoral level institutions, more than a majority of respondents indicated it to be essential for tenure except in the case of the "A-Private" type, in which only a small minority so regarded it.

Research provides a mixed picture. For "A-Private" institutions it is the predominant determiner in both promotion and tenure decisions. At masters level institutions it is regarded as essential by an imposing minority of faculty, except with "C-Private" institutions, while at baccalaureate level institutions fewer than a third of the faculty typically regard it as essential.

These perceptions, if in fact they characterize these institutions, pose some conflicts. Teaching and instruction is no problem, for nearly everyone recognizes its pre-eminence and feels that the SCDE provides a good environment to support it. But if research is essential in the doctoral level institutions, presumably faculty would be grateful if both the college/university and the SCDE provided more support than they do, including, for example, more reduced teaching loads. In the non-doctoral institutions, which seem to provide a good environment for service, service is nevertheless seldom counted toward promotion or tenure; faculty who engage in it may feel comfortable but they are more likely to be commended than rewarded.

At a different level, one may note that those activities which are likely to be rewarded--instruction and research--are also the traditional activities of the university. But it seems evident that there is a trend for professional schools in general and SCDEs in particular to engage in many of the other kinds of missions in order to cope with the problems of the real world, i.e., development, dissemination, service, change agentry, and the like. If the press is for these latter activities but the reward system continues to support only the former, conflict at both institutional and individual levels must occur. An SCDE that does not press for emergent missions will not, in the end analysis, meet the needs of the times. An SCDE that does press for emergent missions may be thought of as responsive and effective, but may penalize its faculty because they cannot be promoted or placed on tenure under the normal rules.

KPU Activities of SCDE Faculty

Respondents were queried about their actual participation in a variety of KPU activities. The percentage of respondents in each institutional type claiming current participation is shown in Table IV-14; the same data converted into ranks of activities by institutional type are given in Table IV-15.

Ad-hoc services to schools seems to be the most frequent activity; no fewer than 70 per cent of the respondents for any institutional type reported being so involved.[1] Convention attendance, at least at practitioner oriented conferences, is also a frequent activity; the median percentage in Table IV-14 is 47.9. At the other extreme, editing or serving on the editorial committees of either research or practitioner oriented journals are not widespread. It is interesting to note that when comparing practitioner to research oriented activities (whether publication, editing, or conference attendance), practitioner activities outrank research activities substantially.

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[1] This finding may in part be an artifact of response patterns. Many respondents are unable to check a "hard" activity, e.g., publication, but, not wishing to appear completely uninvolved, check a "soft" activity such as service because this activity is easy to rationalize as one in which almost everyone participates from time to time.

TABLE IV-14

PER CENT OF SCDE FACULTY REPORTING CURRENT INVOLVEMENT IN VARIOUS KPU ACTIVITIES

Type	Control	Per Cent Claiming Participation									
		Practitioner Oriented Journals		Research Oriented Journals		Attend Conferences		Educational Materials		Ad Hoc Services to Schools	Officer in Profess. Assoc.
		Publish in	Edit	Publish in	Edit	Pract.-Oriented	Research Oriented	Consult	Design or Develop		
A	Public	44.1	20.4	38.2	21.1	59.9	40.8	57.2	53.9	81.6	50.0
	Private	45.5	13.0	58.4	28.6	59.7	66.2	51.9	37.7	71.4	40.3
B	Public	37.9	16.1	25.8	9.1	55.6	25.3	40.3	42.7	82.0	50.8
	Private	34.7	18.1	37.5	18.1	47.2	38.9	38.9	38.9	79.2	47.2
C	Public	22.9	7.7	17.5	3.6	42.7	14.1	34.4	38.6	76.1	41.4
	Private	32.0	5.3	13.3	2.7	44.0	16.0	37.3	33.3	76.0	40.0
D	Public	29.9	12.1	21.5	5.6	48.6	21.5	32.7	40.2	82.2	46.7
	Private	21.7	8.7	17.4	4.4	43.5	26.1	30.4	34.8	73.9	39.1
E	Public	10.0	6.7	6.7	6.7	56.7	20.0	33.3	46.7	90.0	70.0
	Private	9.8	2.4	0.0	0.0	12.2	14.6	24.4	26.8	70.7	36.6
F	Public	17.2	6.9	3.4	0.0	20.7	0.0	24.1	31.0	75.9	41.4
	Private	25.0	0.0	15.0	0.0	50.0	20.0	15.0	25.0	70.0	20.0
Median Percentile		27.5	8.2	17.5	5.0	47.9	20.5	33.9	38.2	76.1	41.4

TABLE IV-15

RANKINGS OF KPU PARTICIPATION AS REPORTED BY SCDE FACULTY

Type	Control	Practitioner Oriented Journals		Research Oriented Journals		Attend Conferences		Educational Materials		Ad Hoc Service to Schools	Officer in Prof. Assoc
		Publish in	Edit	Publish in	Edit	Pract. Oriented	Research Oriented	Consult	Design or Develop		
A	Public	2	1	2	2	1	2	1	1	4	3
	Private	1	4	1	1	2	1	2	7	10	8
B	Public	3	3	4	4	4	5	3	3	3	2
	Private	4	2	3	3	7	3	4	5	5	4
C	Public	8	7	6	8	10	11	6	6	6	6.5
	Private	5	10	9	9	8	9	5	9	7	9
D	Public	6	5	5	6	6	6	8	4	2	5
	Private	9	6	7	7	9	4	9	8	9	10
E	Public	11	9	10	5	3	7.5	7	2	1	1
	Private	12	11	12	11	12	10	10	11	11	11
F	Public	10	8	11	11	11	12	11	10	8	6.5
	Private	7	12	8	11	5	7.5	12	12	12	12

The rank of current activities for faculty in each of the several types of institutions is reported in Table IV-15. Doctoral level institutions rank higher on almost every activity. In most cases masters level institutions rank higher than baccalaureate, using the simple sum of ranks as an indicator. First rank in every activity is held by an "A" type institutions, with the exception of ad hoc services to schools and service to professional associations, where first rank is held by baccalaureate level public institutions. "A-Privates" rank first or second in every category except four: editing practitioner oriented journals, designing and developing educational materials, ad hoc services to schools, and service to professional associations. In the area of publication and/or editing of research oriented journals, the 'A-Privates" outdistance their nearest competitor, the "A-Publics," by a substantial margin. The nature of these activities underscores the prevailing interest of this class of institution in conceptual, theoretical, and research oriented activity.

In general, one may conclude that fewer than half of the SCDE personnel engage in KPU activities with the exception of rendering ad hoc services to schools (the fact that this activity is frequently reimbursed should not escape the reader), and that most of the KPU activity, whatever its nature and including ad hoc service, is carried out by doctoral level institutions, particularly the research center institutions.

Faculty Perceptions of the Future for SCDEs and KPU

Future projection data solicited from SCDE faculty were of two types: (1) several questions that parallel information reported earlier, (e.g., projected importance of and personal involvement in SCDE missions, and of personal involvement in KPU activities), and (2) items probing the significance of external impact factors to SCDEs.

Importance of and Involvement in SCDE Missions

The relevant data are shown in Table IV-16. A quick glance at the table indicates (by the relative absence if 1s, 2s, and 3s) that in general only minorities of faculty respondents predicted upward trends in the importance of any mission area in SCDEs. When predicted increases occured, they appeared in the "teaching and instruction" and "research columns." Of special interest is the fact that a clear majority of faculty in "A" institutions expect emphasis on research to increase, although this activity is already a primary one for these institutions.

In terms of personal involvement, the situation is very similar. All ratings higher than 4 occur in the teaching and instruction column. Faculty members apparently expect that they will be doing somewhat more teaching in the future. Predicted changes in other personal activities are virtually nil, except in doctoral level institutions where some increased involvement in research is projected.

Overall, faculty respondents expect mission emphases five years from now, and their own involvement in these missions, to be rather similar to the present status.

Involvement in KPU Activities

These data are shown in Tables IV-17 and IV-18. The faculty respondents predicted an enormous increase in their personal involvement in KPU activities. With the exception of service and practitioner conferences, which were already engaged in by a large proportion of respondents, every activity is expected to increase by a factor of at least 1.6, and publishing and/or editing in both practitioner and research journals leads the list (by factors of 2.6 to 4.7).

These data are especially interesting in view of the immediately previous discussion on changes in mission emphases and projected personal

TABLE IV-16

SCDE FACULTY RATINGS FOR PROJECTED IMPORTANCE OF AND INVOLVEMENT IN SCDE MISSIONS IN THE FUTURE[1]

Type	Control	Future Importance of Missions in Respondent's SCDE					Projected Involvement of Respondent in SCDE Missions				
		Teaching and Instruct.	Research	D, D and D	Ad Hoc Services	Effecting Change	Teaching and Instruct.	Research	D, D and D	Ad Hoc Services	Effect. Change
A	Public	4	3	5	4	4	4	4	5	5	5
	Private	5	3	5	5	5	4	4	5	5	5
B	Public	3	4	5	4	5	4	4	5	5	5
	Private	4	3	5	4	5	4	4	5	5	4
C	Public	3	5	5	4	4	4	5	5	5	5
	Private	3	5	5	5	5	4	5	5	5	5
D	Public	3	4	5	5	5	3	5	5	5	5
	Private	3	5	5	5	5	3	5	5	5	5
E	Public	2	5	5	5	4	3	5	5	5	4
	Private	3	6	5	4	5	4	5	4	4	5
F	Public	3	5	5	4	4	3	5	5	5	5
	Private	2	5	5	5	5	3	5	5	5	5

[1] Cell entries depict percentage categories of respondents who indicated "increase" rather than "same" or "decrease."

Table Code:
- 1--Almost Always (90-100 per cent)
- 2--Frequent (65-89 per cent)
- 3--More Typical (50-64 per cent)
- 4--Less Typical (35-49 per cent)
- 5--Infrequent (10-34 per cent)
- 6--Never or Almost Never (0-9 per cent)

TABLE IV-17

PROJECTIONS BY SCDE FACULTY OF FUTURE INVOLVEMENT IN KPU ACTIVITIES

Type	Control	Per Cent Projecting Participation								Ad Hoc Services to Schools	Officer in Profess. Assoc
		Practitioner Oriented Journals		Research Oriented Journals		Attend Conferences		Educational Materials			
		Publish in	Edit	Publish in	Edit	Pract.-Oriented	Research Oriented	Consult	Design or Develop		
A	Public	73.0	38.2	73.7	41.4	71.7	67.1	75.0	69.1	84.9	60.5
	Private	64.9	33.8	85.7	36.4	61.0	81.8	61.0	53.2	74.0	54.5
B	Public	75.3	38.4	63.4	27.7	75.5	51.3	71.0	73.7	86.8	71.8
	Private	73.6	44.4	77.8	40.3	68.1	70.8	69.4	52.8	81.9	62.5
C	Public	68.1	26.7	47.3	19.0	63.2	38.6	68.1	69.4	86.9	59.1
	Private	65.3	14.7	49.3	17.3	64.0	38.7	66.7	62.7	93.3	65.3
D	Public	67.3	28.0	55.1	16.8	71.0	52.3	63.6	65.4	85.0	63.6
	Private	78.3	26.1	56.5	17.4	65.2	43.5	65.2	65.2	82.6	52.2
E	Public	86.7	23.3	50.0	13.3	83.3	43.3	63.3	76.7	90.0	83.3
	Private	75.6	29.3	41.5	14.6	53.7	22.0	70.7	63.4	87.8	70.7
F	Public	65.5	10.3	44.8	13.8	51.7	34.5	62.1	75.9	82.8	65.5
	Private	70.0	30.0	50.0	15.0	85.0	40.0	70.0	75.0	95.0	75.0
Median Percentile		71.5	28.7	50.4	17.4	66.7	43.4	67.4	67.3	85.9	64.5

TABLE IV-18

RANKINGS OF PROJECTED PARTICIPATION IN VARIOUS KPU ACTIVITIES BY SCDE FACULTY

Type	Control	Practitioner Oriented Journals		Research Oriented Journals		Attend Conferences		Educational Materials		*Ad Hoc* Services to Schools	Officer in Prof. Assoc.
		Publish in	Edit	Publish in	Edit	Pract. Oriented	Research Oriented	Consult	Design or Develop		
A	Public	6	3	3	1	4	3	1	6	8	9
	Private	12	4	1	3	10	1	12	11	12	11
B	Public	4	2	4	4	3	5	2	4	6	3
	Private	5	1	2	2	6	2	5	12	11	8
C	Public	8	8	10	5	9	10	6	5	5	10
	Private	11	11	9	7	8	9	7	10	2	6
D	Public	9	7	6	8	5	4	9	7	7	7
	Private	2	9	5	6	7	6	8	8	10	12
E	Public	1	10	7.5	12	2	7	10	1	3	1
	Private	3	6	12	10	11	12	3	9	4	4
F	Public	10	12	11	11	12	11	11	2	9	5
	Private	7	5	7.5	9	1	8	4	3	1	2

involvement in missions. While those data indicate that respondents expect only small changes in mission (mostly in respect to teaching and instruction), these data indicate that faculty expect to engage in KPU activities much more extensively in as short a time span as five years. There may be a number of explanations for this variation. It may be that the specification of activities in Table IV-17 elicited a more realistic and reasoned response than the more general mission listing of Table IV-16. Or conversely, the data may be the result of wishful thinking on the part of respondents, or an extending of the best foot forward since respondents knew they were responding to a KPU study. If even a portion of the aspirations indicated by these responses may be taken as real, it is clear that many will not be met. If such failure is in fact the case one can predict conflict and disappointment for a large majority of respondents.

One may infer that this projected increased involvement in KPU activities is triggered by the increasing rigor noted in respect to promotion and tenure criteria. Insofar as the faculty members engage in research and similar scholarly activity, the reward system will be supportive, but insofar as they engage in other kinds of KPU activity, the current system will be relatively non-supportive. To whatever extent faculty are successful in realizing increased aspirations for KPU activity, they may find themselves not being recognized or rewarded for it unless that activity is fairly traditional in nature.

In five years, faculty members in non-doctoral institutions apparently expect to compete on fairly equal terms with doctoral faculty in KPU involvement. Thus, while Table IV-15 had the 1s and 2s clustered predominantly in the first two rows of the table, Table IV-18 permits no such easy analysis. Inspection of the ranks indicates that the baccalaureate level institutions project involvement to a greater extent than either doctoral or masters level institutions in four areas: publication in practitioner oriented journals, designing and developing educational materials, ad hoc services to schools, and service to professional organizations. Doctoral level institutions still project highest involvement in the remaining areas, but they are challenged closely by masters level institutions in the areas of attending practitioner oriented conferences and consulting on educational materials.

Of course, there is a massive credibility gap between the projections of doctoral level faculty and those from other levels in regard to KPU involvement. While their projections may be statistically similar, and perhaps even intentionally similar, there is a much more substantial base for assuming the reality of such predictions in the doctoral institutions. The faculty in doctoral institutions are currently engaged in the activities in which they project future involvement. Most of the faculty in the other institutional sites are not.

There is another basis on which to question the realism of the projections in the non-doctoral SCDEs. Not only are they inconsistent with the likely fiscal and mission status of SCDEs, but they are inconsistent with attitudes and work patterns of faculty toward research in such institutions. The recent study completed by Ladd and Lipset indicates that only 33 per cent of faculty members in education ever have received external funding in support of their activities,[1] that 30 per cent of all faculty feel that funds directed toward support of research should be among the first to go if budget cuts are needed,[1] and that only 28 and 26 per cent of all faculty feel that more time for research or better research facilities respectively are among the important factors to be taken into account as they assess the possibility of moving from their current institutions.[2] These attitudes toward research do not provide much positive evidence for the contention that greater faculty involvement in at least KP in most SCDEs is very likely.

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[1] Everett Carl Ladd Jr. and Seymour Martin Lipset, "The Professor and Social Status," Chronicle of Higher Education,(May 17, 1976) p. 11.

Significance of External Impact Factors on SCDEs

Respondents were asked to indicate whether selected external impact factors were having or have had a "major," "noticeable," or "negligible" impact on their own SCDEs. To analyze the data, the percentage of response in the "major" response category was converted into deciles (0 = 0 - 9.9 per cent, 1 = 10 - 19.9 per cent, . . . , 9 = 90 - 100 per cent), and the deciles summed for each factor. This sum was then used as a rough indicator of the factor's importance. So for example, the factor, "decreased demand for teachers," was given decile scores of 4, 4, 2, 3, 4, 4, 3, 4, 1, 2, 3, and 4 by the 12 institutional subtypes ("A-Public" to "F-Private) for a total of 38 "points."

The factors are described below in order of importance as determined by this decile indicator:

1. *Increasing constraints* placed on SCDEs *by decisions made* elsewhere in *the university or college administrative hierarchy*, e.g., enrollment limitations or budget cuts. This seems to be an across-the-board problem, although perhaps felt slightly more by public institutions. This factor is labeled as of major importance by from 30 to 70 per cent of faculty respondents in the several institutional types. 55 points.

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[1] _____, "When Colleges Retrench, Where Should Cutbacks Come?" *Chronicle of Higher Education*, (April 12, 1976) p. 7.

[2] _____, "Nearly All Professors are Satisfied with Their Choice of an Academic Career," *Chronicle of Higher Education*, (May 3, 1976) p. 11.

2. Decrease in funds available from state governments. While this is a negligible problem for private institutions, public institutions clearly feel that it is of great moment. For these institutions, percentages range from about 20 to about 70 per cent, with a value near 50 more or less typical. 39 points.

3. Decreased demand for teachers. Also an across-the-board problem, though apparently felt more keenly by masters institutions and less by baccalaureate institutions. Responses range from 10 to 50 per cent. 38 points.

4. Emphasis on new modes of teacher education, e.g., competency-based or field-based teacher education. Emergence of new modes seems to be having an across-the-board influence, with slightly greater emphasis at the baccalaureate level. Responses range from 20 to 60 per cent. 37 points.

5. Demand for different teaching skills and behaviors in the public schools. An across-the-board item; response range 20 to 40 per cent, except for "C-Privates," which had a response percentage in the 50's. 34 points.

6. Decrease in Federal funds available for student support. This factor appears not to be terribly important to most institutional types but does loom comparatively large for the research center institutions ("A") and for "D-Privates." In the former case one can presume that the expressed concern arises because of the inability of these research center institutions to provide broad support for advanced graduate students. 30 points.

7. Decrease in Federal funds for R and D support. Again, a minor item for all except the research center institutions, especially "A-Privates," where dependence on soft money to undergird research programs is high. 29 points.

8. Increased involvement of the teaching profession in the certification/accreditation process. A minor across-the-board problem felt a little more strongly by masters and baccalaureate level institutions. Response rate from 10 to 30 per cent; in the case of "C-Privates" in the 40's. Apparently the majority of SCDE faculty does not share the concern expressed in many quarters over possible changes in SCDEs as a consequence of teacher organizations assuming primary control of entry to and licensing in the profession. 26 points.

9. Decrease in funds available from private philanthropy. A counterpart problem of decrease in funds from state governments, felt more sharply by private institutions than public; response rate typically under 20 per cent for public institutions but from 20 to 50 per cent for privates. 22 points.

The following problems were of generally minor importance. The response rates were rarely higher than 20 per cent for any type of institution:

10. Increased demand for specific services (help) from public schools and other educational agencies. This factor is seen as somewhat more important by "C" institutions. 20 points.

11. Increased demand for nonteaching educational personnel, such as counselors, school health and social work personnel, media specialists, evaluators, and the like. Seen as especially unimportant by baccalaureate level institutions. 17 points.

12. Increase in teacher organization and militancy at the public school level. "A-Public" institutions see this as more of a factor than do other institutions, with a ranking in the 30's. 14 points.

13. Decrease in funds available from alumni giving. Almost a negligible problem except among "D-Private," "E-Private," and "F-Private" institutions--smaller, lower degree level private schools. 14 points.

The following problems were reported as almost negligible across-the-board, with response rates rarely higher than 10 per cent:

14. Emergence of competitive agencies engaged in teacher training and retraining, e.g., teacher organizations, external degree programs, proprietary schools, local school district in-service training programs. "D-Private" and "E-Private" institutions expressed some concern. 12 points.

15. Increased R and D in the area of teaching-learning and/or the education of teachers. Little concern across-the-board. 12 points.

16. Increase in professor organization and militancy at the college or university level. Of modest concern only in "C-Public" and "D-Public" institutions. 9 points.

17. Increased use of paraprofessionals in the schools, such as teacher aides. No concern. 8 points.

18. Emergence of competitive agencies for R and D, dissemination, service, etc., such as regional laboratories, special units in state departments of education or local school districts, private consulting firms, etc. Of concern to no one. 1 point.

The five items constituting the "negligible" factors are a surprising list. It is doubtful whether an assessment of problems as reflected in the literature of teacher education would have so placed them, and it is dubious whether they would have been disregarded had the rating been done by SCDE administrators rather than faculty. Of special concern here is item 15; that increased R and D in the area of teaching-learning and/or the education of teachers should have been thought inconsequential by SCDE faculty. While perhaps not unexpected, it is certainly disappointing. SCDE faculty do not, it seems, have much faith in the likely impact of R and D in effecting changes in their SCDEs. Similarly, the emergence of competitive agencies for KPU activities, viewed with alarm by many SCDE administrators (who argue forcefully, for example, that they cannot compete for "Requests for Proposals" from Federal agencies against such organizations), results in hardly a ripple of concern by faculty.

The factors seen to be of greatest moment by faculty comprise a mixed bag. Chief in terms of response rate is the relative loss of decision autonomy at the SCDE level. Four of the first nine factors have to do with budget retrenchments; and of the remaining four factors (decision autonomy excluded), one is concerned with the shrinkage of the teacher market, two with new kinds of program demands, and one with increasing professional involvement in teacher accreditation/certification.

It is also possible to sum deciles across institutional rows in order to get some indication of the level of concern with these issues felt by each institutional type, and indeed, there seem to be some differences. Research center institutions and masters level institutions (types "A," "C," and "D") range in row sums from 37 to 41, while other doctoral level institutions and baccalaureate level institutions (types "B," "E," and "F") range in row sums from 29 to 33. The former group thus seems to take the external impact factors as a collection somewhat more seriously than the latter. The reasons for this apparent difference are not immediately evident.

Responses to External Impact Factors

SCDE faculty were asked to indicate on a selected list of possible actions which an SCDE might take in response to the impact factors described in the previous section those which have actually occurred in their own SCDEs. When the percentage was again converted to deciles and added into a point score for each action, the following ranking resulted:

1. Tightening of promotion/tenure requirements--the overwhelmingly most frequent response ranging from 50 to nearly 100 per cent. 89 points.

2. Cutbacks on faculty size--responses ranged from 30 to 70 per cent. 58 points.

3. Offering a larger portion of the instructional program off-campus--responses ranged from 10 to 70 per cent. 46 points.

4. Increasing efforts to offer programs to up-grade in-service teachers with concomitant de-emphasis on pre-service programs. Responses ranged from 10 to 60 per cent. 39 points.

5. Tightening student admission requirements in education--an across-the-board adjustment, with somewhat lesser emphasis at the baccalaureate level. Responses ranged from 20 to 60 per cent. 35 points.

6. Increasing emphasis on instruction while cutting back on research, development, service, etc. A response of less frequency at the doctoral level institutions (responses less than 30 per cent), intermediate frequency at masters level institutions (responses less than 40 per cent), and greatest frequency at baccalaureate level institutions (responses up to 60 per cent). This is an odd response in the baccalaureate group since the level of activity is already very low. 32 points.

7. Increasing emphasis on conventional programs, even cutting back on recently introduced innovations if necessary. A response more typical of baccalaureate level institutions. Responses ranged from 10 to 50 per cent. 27 points.

8. Decentralization of many responsibilities to the SCDE level, as for example, requiring the SCDE to "make its own way" so far as budget is concerned. A response found primarily in the "A-Private" institutions; other responses from 10 to 40 per cent. 25 points.

9. Limiting student enrollment in education. Not a common response except in "A-Public" institutions (response rate in excess of 60 per cent); in general almost never found in private institutions. 21 points.

10. Replacing faculty instructional load with new assignments such as R and D, field service, development, dissemination, etc. A rarely found response in all institutions. 17 points.

The faculty respondents were most sensitive to tightening of promotion/tenure requirements and cutbacks in faculty size which were uniformly reported in the institutional types. If in fact promotion/tenure requirements are more rigorously enforced, it seems likely that faculty will find themselves more accountable for better teaching and improved research, but probably not supported in other kinds of KPU activity, if the data of earlier sections can be believed. Again conflict seems inevitable for many faculty members.

It is not surprising that strenuous efforts are being made by SCDEs to tap new markets of students--by responding to the demand for in-service education and by moving programs into the field where the potential students are located. But again one must note that such activities do not fulfill the normal definition of instruction and particularly not of scholarly activity employed in the reward systems of many IHEs. From the point of view of KPU planners it must seem unfortunate that some institutions are increasing emphasis on instruction at the expense of KPU and especially research, and that opportunities are not being taken to reassign faculty released from teaching loads by enrollment drops to KPU activities. Generally speaking, the pattern of retrenchment is evident across institutional types, with perhaps an effort being made to respond positively in the form of seeking new markets for teaching services.

Effect of Impact Factors on SCDE Missions and Faculty Activity Emphases

Respondents were asked to indicate whether emphases in their own SCDEs on the five mission areas (teaching and instruction, research, D, D and D, *ad hoc* service, and effecting change) would increase, remain the same, or decrease as a result of the above-noted impact factors and responses to these factors; and whether their own involvement in these mission areas would decrease, remain the same, or increase correspondingly. The relevant data are shown in Tables IV-19 and IV-20.

Looking first at Table IV-19, where changes are expected they are more likely anticipated to be increases rather than decreases. Particularly, the respondents saw an increase in service activity and in teaching and instruction, with research a strong third place contender. There seem to be few systematic differences in the table except that there was some tendency for public institution respondents to place more emphasis on D, D and D, ad hoc service, and effecting change than did their private institution counterparts.

Turning to Table IV-20, which reflects respondents' judgments about their own involvement in these mission areas, research is a surprisingly strong first contender. Thus while these respondents expect institutional missions to increase primarily in teaching and service, they expect to increase their own activity primarily in research. Since this expectation for increased personal productivity in research is probably not realistic, it is likely to be organizationally unhealthy and a source of personal conflict and disillusionment.

The data from Tables IV-19 and IV-20 can be compared to those of Table IV-16, which showed how respondents projected future SCDE priorities and personal involvement in the five mission areas. In the case of Table IV-16, judgments were made more or less impersonally and before the respondent had been led through the lengthy exercise of assessing external impact factors and SCDE responses to those factors. In that table it was noted that faculty expected SCDE mission emphases to be somewhat higher in teaching and research; in Table IV-19 they anticipated SCDE mission emphases to be higher in teaching and service. In Table IV-16 respondents expected their own involvement to increase in teaching and research, and

TABLE IV-19

SCDE FACULTY PERCEPTIONS OF CHANGING SCDE EMPHASES RESULTING FROM IMPACT FACTORS AND SCDE RESPONSES TO THESE FACTORS[1]

Type	Control	Decile Ranking on Increased or Decreased Activity									
		Teaching and Instruction		Research		D, D, and D		*Ad Hoc* Services to Schools		Effecting Change	
		Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decr.
A	Public	3	0	3	1	3	0	4	1	3	1
	Private	2	0	3	0	2	1	2	1	1	1
B	Public	3	0	4	0	3	0	4	0	2	0
	Private	3	0	4	0	2	0	4	0	2	0
C	Public	4	0	2	1	2	1	4	1	3	0
	Private	3	0	2	0	3	0	4	0	2	0
D	Public	4	0	4	0	2	0	5	0	3	1
	Private	5	0	3	1	2	0	4	0	1	1
E	Public	5	0	2	1	3	1	5	1	4	0
	Private	4	0	0	1	1	1	3	0	2	0
F	Public	3	0	4	1	4	1	5	1	4	1
	Private	5	0	3	1	2	1	2	1	1	2

---

[1] Responses of "no change" and "no answer" are not recorded.

Table Code: Table entries are deciles, as follows:

0 = 0 - 9.9 per cent
1 = 10 - 19.9 per cent
2 = 20 - 29.9 per cent
3 = 30 - 39.9 per cent
4 = 40 - 49.9 per cent
5 = 50 - 59.9 per cent
6 = 60 - 69.9 per cent
7 = 70 - 79.9 per cent
8 = 80 - 89.9 per cent
9 = 90 - 100 per cent

TABLE IV-20

SCDE FACULTY PERCEPTIONS OF CHANGES IN THEIR OWN EMPHASES RESULTING FROM IMPACT FACTORS AND SCDE RESPONSES TO THESE FACTORS[1]

Type	Control	Decile Ranking on Increased or Decreased Activity									
		Teaching and Instruction		Research		D, D, and D		*Ad Hoc* Services to Schools		Effecting Change	
		Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decr.
A	Public	1	0	4	0	3	0	2	0	2	0
	Private	1	0	4	0	2	0	1	0	2	0
B	Public	2	0	5	0	3	0	3	0	2	0
	Private	3	1	5	0	3	0	4	0	3	0
C	Public	4	0	3	0	3	0	4	0	3	0
	Private	3	0	4	0	3	0	5	0	3	0
D	Public	3	0	5	0	3	0	4	0	3	0
	Private	4	0	3	0	1	0	4	0	3	0
E	Public	5	0	4	1	4	1	5	1	6	1
	Private	5	0	3	0	4	0	4	0	3	0
F	Public	3	1	5	1	3	0	4	1	2	1
	Private	4	1	5	1	5	0	4	0	4	0

---

[1] Responses of "no change" and "no answer" are not recorded.

Table Code: Table entries are deciles, as follows:

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6 = 60 - 69.9 per cent
7 = 70 - 79.9 per cent
8 = 80 - 89.9 per cent
9 = 90 - 100 per cent

that tendency is reinforced by the data of Table IV-19. There was some divergence between the two data sources about SCDE mission priorities, but the two sources converged in predicting increased faculty involvement in teaching and research.

Effect of Impact Factors on SCDE Target Audiences and Program

Respondents were asked to indicate likely increases or decreases (or improvements and declines) in program emphases directed at pre-service teachers, in-service teachers, and new populations of teachers; in emphasis on physical movement of programs off-campus; in quality of instructional programs; and in degree of control over teacher education requirements by SCDEs in response to the impact factors. The results are displayed in Table IV-21.

Most respondents expect program emphases to be redirected in a major way at in-service teachers and to some extent at new teachers. Baccalaureate level institution respondents felt that pre-service emphases will also increase, although that position was not fully shared by masters and especially doctoral level institutions. There appears to be a strong expectation that more programs will be moved off-campus, particularly in the doctoral institutions. Respondents also seemed to agree that the quality of instructional programs would improve, although baccalaureate level institutions were more sanguine about this than the other two levels (doctoral respondents least of all). Finally, a slim minority believe that SCDE control over teacher education requirements will increase, although a noticeable minority of somewhat smaller proportions clearly believes just the opposite.

Effect of Impact Factors on SCDE Size and Quality of Personnel

Respondents were asked to predict increases and decreases in both

TABLE IV-21

SCDE FACULTY PERCEPTIONS OF CHANGES IN SCDE TARGET AUDIENCES AND PROGRAMS RESULTING FROM IMPACT FACTORS[1]

Type	Control	Program Emphasis Directed at These Target Groups Will . . .						Emphasis on Physical Movement of Programs Off-Campus Will . . .		Quality of Instructional Programs Will . . .		SCDE Control Over Teacher Education Requirements Will...	
		Pre-Service Teachers		In-Service Teachers		New Populations of Teachers							
		Incr.	Decr.	Incr.	Decr.	Incr.	Decr.	Incr.	Decr.	Impr.	Decl.	Incr.	Decr.
A	Public	1	4	7	0	5	0	6	2	3	2	1	2
	Private	1	3	6	0	6	0	4	0	3	0	1	2
B	Public	2	2	7	0	5	0	7	0	4	1	2	1
	Private	2	3	7	0	6	0	7	0	4	0	2	0
C	Public	3	1	6	0	4	1	6	0	4	1	2	2
	Private	3	0	7	0	6	0	6	0	5	0	2	1
D	Public	3	1	7	0	5	0	6	0	4	0	3	1
	Private	0	1	5	0	4	0	3	1	5	1	1	1
E	Public	4	0	4	0	5	0	5	0	7	0	2	0
	Private	4	0	5	0	4	0	3	0	4	0	2	2
F	Public	4	1	5	0	4	0	5	0	5	2	3	0
	Private	6	0	6	1	4	2	4	0	7	0	2	3

[1] Responses of "no change" and "no answer" are not recorded.

Table Code: Table entries are approximately deciles, as follows:

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3 = 30 - 39.9 per cent
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5 = 50 - 59.9 per cent
6 = 60 - 69.9 per cent
7 = 70 - 79.9 per cent
8 = 80 - 89.9 per cent
9 = 90 - 100 per cent

faculty and student size and quality as a result of the impact factors noted above. The responses are displayed in Table IV-22.

So far as faculty size is concerned, respondents in doctoral level institutions see little reason to be optimistic. Fewer than one-fifth of their number predict an increase, while a decrease is predicted by from 30 to 70 per cent, with the largest prediction for decrease coming from the "A-Public" group. Respondents from baccalaureate level institutions seem more sanguine; their responses seem to be about equally divided for decrease and increase.

Most respondents apparently believe that regardless of whether faculty size increases or decreases, faculty quality will go up. Respondents predicting an improvement range from 30 to 80 per cent, with a slight tendency for baccalaureate level faculty to be most optimistic.

A similar tendency may be noted with respect to student size and quality. Respondents from doctoral level institutions tend to believe (from 20 to 60 per cent) that student enrollments will decrease; almost no one in the research center institutions foresees an increase. Again, at the baccalaureate level, optimists exceed pessimists rather considerably. But at all levels improvement in student quality is expected. Only in the "D" type institutions do as many as 30 per cent of the respondents believe student quality will decline; while with the exception of "A-Private" institutions 30 to 70 per cent expect improvement.

Summary

The future of SCDEs projected from these data does not seem to be a startling surprise. Missions, the respondents seem to indicate, will be roughly stable, with some increasing emphasis on instruction and research, or instruction and service, depending on which set of data one believes

TABLE IV-22

SCDE FACULTY PERCEPTIONS OF CHANGES IN FACULTY AND STUDENT SIZE AND QUALITY RESULTING FROM IMPACT FACTORS[1]

Type	Control	Faculty Size Will . . .		Faculty Quality Will . . .		Student Enrollments Will . . .		Student Quality Will . . .	
		Increase	Decrease	Improve	Decline	Increase	Decrease	Improve	Decline
A	Public	0	6	3	2	1	4	4	1
	Private	0	4	4	0	0	5	2	1
B	Public	1	3	4	0	2	2	4	0
	Private	1	4	4	1	2	4	4	0
C	Public	1	5	3	1	2	3	3	1
	Private	1	3	5	0	3	3	4	0
D	Public	2	3	4	2	4	2	3	2
	Private	2	5	4	1	3	3	3	2
E	Public	3	2	7	0	5	0	6	0
	Private	1	3	4	1	2	2	3	1
F	Public	1	4	4	2	3	2	4	1
	Private	4	2	6	0	5	2	5	1

[1] Responses of "no change" and "no answer" are not recorded.

Table Code: Table entries are approximately deciles, as follows:

0 = 0 - 9.9 per cent
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5 = 50 - 59.9 per cent
6 = 60 - 69.9 per cent
7 = 70 - 79.9 per cent
8 = 80 - 89.9 per cent
9 = 90 - 100 per cent

most strongly. SCDEs will certainly be affected by a variety of impact factors, the respondents indicate, particularly the funding crisis. SCDEs will make and are already making a variety of adjustments, including, chiefly, tightening of promotion/tenure requirements, faculty cutbacks, and efforts to attract new audiences, e.g., moving programs off-campus. Student size is predicted to decrease as is faculty size. Simultaneously both student and faculty quality are expected by the respondents to increase. The cause of qualitative and quantitative improvement in KPU in education would certainly not be hurt if this latter expectation is realized.

Projections about the faculty's personal involvement in KPU are startling. Increases of several magnitudes are predicted by faculty for every KPU activity, and increases in teaching and instruction expectations also seem to be anticipated. Several conflicts seem likely if these projections are, in any sense, "real": first, that many of the KPU activities other than research will be inconsistent with conventional college and university reward systems and hence ultimately abortive to the faculty member's career; second, that these activities will not mesh with projected future mission emphases of SCDEs (except in instruction and research); and third, that there will be an impossible demand for time, energy, and resources within the SCDE. A likely result without organizational interventions not now predicted would be personal disillusionment for those faculty members with serious aspirations in KPU.

STUDIES of PRODUCTIVITY
in
KNOWLEDGE PRODUCTION and UTILIZATION
by
SCHOOLS, COLLEGES
and
DEPARTMENTS of EDUCATION

David L. Clark
Egon G. Guba
November, 1976

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PREFATORY NOTE

The paper which follows is based upon data accumulated by the Research on Institutions of Teacher Education (RITE) staff during a two year study of knowledge production and utilization activities (KPU) in schools, colleges, and departments of education (SCDEs). This paper reports on the results of seven studies of KPU productivity by SCDEs in which the productivity measure was available through sources independent of the SCDE itself, i.e., (1) education journals, (2) Resources in Education (RIE) entries in the Educational Resources in Education (ERIC) system, (3) education books, (4) education convention programs, (5) foundation grants for educational KPU, (6) other grants and contracts for KPU in education, primarily from Federal agencies, and (7) the institutional source of terminal degrees of professors of education. It is a self-contained report in the sense that this cluster of studies might well have been undertaken as a separate research endeavor. It provides one view of KPU activity in SCDEs. The full RITE study, however, undertook inquiries designed to provide multiple perspectives. In addition to the productivity studies the RITE staff (1) conducted an institutional questionnaire study of SCDEs, (2) surveyed faculty in SCDEs by questionnaire, (3) site-visited SCDEs, and (4) undertook a projection of SCDE futures based on an analysis of internal and external impact variables affecting such institutions.

Other occasional papers will be issued in this series covering various aspects of the research. A technical report on the entire study is in preparation for the sponsoring agency, the National Institute of Education. The occasional papers are being issued separately because the authors assumed that (1) readers would be interested in having the data in hand as soon as they were available; (2) some of the sub-studies are of interest to groups and individuals that would not be interested in the full report; and (3) the cost of distributing widely the full technical report and its appendices is prohibitive.

The technique of issuing papers which will ultimately become chapters in the technical report does cause one problem for the reader. You will note references to background chapters and appendices which are not included in this paper. To the best of our ability, the RITE staff will respond to requests for copies of technical data which the reader may need. Since the expense involved in distributing such data is substantial, we hope that you will restrict such requests to data needed by you in analyzing or understanding the paper or in your own research endeavors. All of these data will, of course, be included in the technical report which will be available through ERIC.

November, 1976

David L. Clark
Egon G. Guba

CHAPTER V

STUDIES OF PRODUCTIVITY IN KNOWLEDGE PRODUCTION AND UTILIZATION BY SCHOOLS, COLLEGES, AND DEPARTMENTS OF EDUCATION

Operating on the assumptions that knowledge production and utilization (KPU)[1] activities have some identifiable products and that institutional self-reports are neither a sufficient nor valid source of evidence to use in determining institutional productivity, the RITE staff undertook seven sub-studies of KPU yield from schools, colleges, and departments of education (SCDEs) . The nature of these studies is described briefly in the following section.

Description of the Productivity Studies[2]

The studies undertaken by the staff included (1) publications in educational journals, (2) documents stored in the Resources in Education (RIE) file of ERIC, (3) published books in education, (4) presentations at national conventions of educational associations, (5) KPU projects in education funded by private foundations, (6) KPU projects in education funded by other agencies, and (7) the institutional source of terminal degrees of faculty of SCDEs. The utility of the studies varied as will be evident in the following discussion.

---

[1] In these studies, KPU was defined by exclusion to include the functions and activities of faculty members when they are not engaged in regularized teaching programs at the SCDE. Knowledge production was defined in general as including basic and applied research, development, and evaluation; knowledge utilization as including demonstration, dissemination, traditional field service, and emergent change agent activities.

[2] The descriptions included in this chapter will be as brief as possible but of sufficient detail to orient most readers to the methodology of the productivity studies. If additional information is required by any reader wishing to replicate and/or challenge a particular study, the authors will provide such data on request.

Education Journals Study

Twenty-six national journals were included in this sub-study. Articles, essays, and reviews in each of the journals were recorded for a three year period of time (circa 1972-74)[1]. The authors of these journal entries were tracked to the institutions or agencies in which they were employed at the time the publication was issued and, where possible, to their departments within institutions[2]. Contributions were recorded with a maximum of 1.0 credit per article, i.e., in the case of two authors of a single article, one-half credit would have been noted for each co-author.

The journals included were selected on four bases: first, journals identified as significant in the growth of the knowledge base in the field of education in the Barron and Narin study were given priority[3]; second, journals identified as predominantly including research based or non-research based articles in the Ward, Hall, and Schramm study were used to balance off researcher (KP) and practitioner (KU) oriented emphases among the 26 journals[4]; third, several of the highest circulation journals in education were added on the assumption that their influence on the field should not be ignored even if they had not been identified in the Barron and Narin study; and, finally, attention was given to identifying journals that represented a spectrum of substantive areas within education.

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[1] In fact, four years were employed (1971-74) so that substitute journal issues could be used in the event of difficulty in accessing a particular issue.

[2] The original intent of the productivity studies had been to examine only output from SCDEs. A small supplemental grant was made by the National Institute of Education to the researchers in September, 1975 to add other agencies to the productivity studies. The results of that effort are reported in the final section of this chapter.

[3] Paul Barron and Frances Narin, Analysis of Research Journals and Related Research Structure in Education (Computer Horizons, Inc.: Chicago, Illinois, 1972) 68 pp.

[4] Annie W. Ward, Bruce W. Hall, and Charles F. Schramm, "Evaluation of

The final set of 26 journals included in the study were: (a) researcher oriented--(1) American Educational Research Journal, (2) Audio-Visual Communication Review, (3) Child Development, (4) Educational Administration Quarterly, (5) Educational and Psychological Measurement, (6) Exceptional Children, (7) Journal of Educational Psychology, (8) Journal of Educational Research, (9) Journal of Experimental Education, (10) Journal of Research in Science Teaching, (11) Reading Research Quarterly, (12) Review of Educational Research, (13) Studies in Philosophy and Education; (b) practitioner-oriented--(1) American Vocational Journal, (2) Arithmetic Teacher, (3) Clearinghouse, (4) Educational Leadership, (5) Elementary School Journal, (6) Instructor, (7) National Association of Secondary School Principals Bulletin, (8) Personnel and Guidance Journal, (9) Phi Delta Kappan, (10) Reading Teacher, (11) School Review, (12) School Science and Mathematics, (13) Today's Education.

The education journals study turned out to be quite useful and will be reported throughout this chapter. A few authors could not be "tracked" but there was no systematic problem in this regard associated with a particular journal. There is a bias in the researcher-oriented publications toward journals in educational psychology but this is the existing bias of knowledge growth in the field of education.

The reader should be alert to the fact that the absolute number of journal credits for an institution or the mean for a group of institutions is meaningless as an absolute figure. Only 26 of the hundreds of educational journals were sampled, and the total tallied is for a three year time period. The number of credits becomes meaningful only as it is

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Published Educational Research: A National Survey" (American Educational Research Journal, Vol. 12, No. 2, Spring, 1975) pp. 109-28.

related to other numbers of credits, e.g., the comparison of mean publication credits across institutional categories. Although it cannot be argued that all faculty publications in educational journals were identified in this sub-study, it can be argued that SCDE contributions to a set of influential journals was measured.

RIE Study

Resources in Education (RIE) is one of two documentation services provided by ERIC. The other deals with documentation of articles in professional journals and was not included since it was redundant with the education journals study[1]. RIE includes fugitive documents not published elsewhere, e.g., project reports, speeches, committee reports, handbooks, instructional modules, etc.

All RIE abstracts for a two year period (April 1, 1973--March 31, 1975) were accessed. All abstracts which were certainly or likely housed in an SCDE were retained and a 20 per cent random sample of all non-SCDE documents was drawn. No effort was made to classify the non-SCDE documents except by institutional type, but the SCDE abstracts were read and classified as predominantly KP or KU or involving activities encompassing both.

The major caution in using RIE credits is the practice followed by some SCDEs to submit materials to RIE more systematically than other institutions. Undoubtedly some SCDEs are over-represented in RIE and, consequently, this measure was used as a complementary measure with publication in educational journals in the classification of SCDEs by KPU productivity.

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[1] It may occur to the reader that ERIC would have been a more efficient system for sampling journals. Unfortunately, from the point of view of this study, authors are not identified with institutions in the Current Index to Journals in Education section of ERIC.

Books in Education Study

The books in education included in this study were those reviewed in the 26 core journals for the three years specified in the journals study. Establishing the institutional base of the authors turned out to be an aggravating problem since this information is almost never included with the review. Eventually, letters were dispatched to educational publishers asking them to provide the institutional base of their authors.

The data obtained through this sub-study are useful in comparing broad institutional types of SCDEs, but the difficulty in establishing the departmental affiliation of authors meant that the number of credits accumulated by any single SCDE was small, i.e., where authors could be traced to a college or university but not to the SCDE or another department within the university, the credit was not classified as accruing to the SCDE. Consequently, the use of books in education as an index of productivity for a single SCDE was not helpful.

Conventions Study

The conventions of six professional associations were included in this study, i.e., American Association of School Administrators, American Educational Research Association, Association for Supervision and Curriculum Development, Council for Exceptional Children, National Council for the Social Studies, and National Education Association. The conventions to be included were chosen to reflect diverse substantive fields and significant impact on education. Originally, the intention was to classify all presentations at a single convention as either practitioner-oriented or researcher-oriented but feedback from interviews with association program planners, and a cursory examination of programs, indicated that this would be impossible except in the cases of AERA and AASA. Presentations at these conferences were classified arbitrarily as KP and KU respectively but the titles of presentations at the remaining four conventions were examined and the presentation classified individually.

Credits were limited to paper presentations and were assigned, in the case of multiple authors, as indicated earlier in the journals study. The convention programs were sampled by coding every other paper presentation for a three year period except in the case of the 1973 AERA convention which was coded completely[1]. Unfortunately, convention programs designate the institutional base of presenters but not departmental affiliations. Since there was no practical way to identify departments, the use of the convention data is restricted in this chapter to a comparison of university and non-university sources.

Foundation Grants Study

The Foundation Center provided a printout of the education grants reported to the Center as having been made by foundations to all agencies for activities in education for a three year period of time (1972-74). These data included (a) the title and, usually, a very brief one or two sentence abstract of the project; (b) the name of the institution receiving the grant and, sometimes, the project director and/or the departmental affiliation of the grantee; and (c) the funding source and amount of funds for the project. The brevity of the information available made it difficult to classify projects as KP or KU but it was almost always possible to sort out non-KPU grants, e.g., general fellowship support, building funds, etc.

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[1] This was a decision of expediency. The 1973 AERA convention was the first program coded. There were 2800 entries accumulated for the single year. It was logistically impossible to continue to code completely all conventions for all years. _A priori_ estimates of KP and KU presentations at the other conventions by individuals knowledgeable about these conventions indicated that the total of KP and KU credits for the three years would be approximately equal across all years and conventions if a 50 per cent sample was used for the remaining two years of AERA and all years of the other conventions. In fact, as the reader will note later in the chapter, the KU credits still exceeded the KP credits for the total presentations included.

Again, absolute numbers are not entirely reliable but relative data generated from the study are useful. The Foundation Center has to rely on individual foundations to report grants to the Center; consequently the list is incomplete. The figures do not reflect the total support from foundations for the support of KPU in education but only new grants made during the period of the study.

Governmental Grants and Contracts Study

The Smithsonian Science Information Exchange (SSIE) maintains abstracts of recent and currently funded projects in a variety of fields including education. The RITE project commissioned custom searches of the SSIE files for FY'74 and FY'75 through April 1, 1975 (21 months in all) for (a) education projects conducted in colleges and universities and (b) additional research on non-education topics conducted in SCDEs. In this instance, comparative data on grants and contracts awarded to agencies outside institutions of higher education were not available without commissioning an additional search which was prohibitively expensive.

The SSIE data included (a) the title and an abstract of each project which allowed a rough classification of the activity as KP, KU, or both; (b) the investigator(s); (c) the institutional affiliation, and frequently, but not always, the departmental affiliation of the investigator(s) and; (d) the funding source and amount of funds for the project. Projects in SSIE are not limited to Federal government grants but include state and local governments, non-profit associations and foundations, and other miscellaneous sources. Foundation grants were dropped since the Foundation Center maintained a more complete list. In some instances, the SSIE list was cross-checked against agency lists, e.g., NIE, and corrected where it was incomplete.

The reader should be aware of some caveats. The absolute number of grants and contracts cannot be entirely relied upon since SSIE depends on investigator and agency cooperation for its information. Moreover, the SSIE data used in this study reflect the new starts over a particular 21 month time period, i.e., it is not a measure of total contract and grant support for KPU in education at an institution. However, the RITE staff cross-check of SSIE information using lists of known projects supplied by NIE indicates high concurrence between the two lists (circa 90-95 per cent). Undoubtedly SSIE's list of projects funded by governmental agencies other than the Federal government is less complete. The particular period chosen, it should also be noted, included the one NIE small grants competition held in recent years and consequently depressed the average size of grants and contracts whenever mean figures are used.

Degree Source Study

The six productivity studies described above were all planned for that purpose; the seventh emerged fortuitously. A question was included on the faculty questionnaire inquiring about the source of the faculty member's terminal degree. The preparation of faculty for employment in SCDEs can be considered a form of institutional productivity in KPU when it is related to the level of KPU productivity of the hiring institution, i.e., SCDEs preparing professorial personnel for work in research center SCDEs are themselves contributing to the overall level of KPU activity in education. These data are of a different order than those resulting from the first six productivity studies, however, and consequently will be reported in a separate section.

Summary and Conclusions

The researchers were not able to discover an ideal way to study KPU yield by SCDEs. The studies which were actually mounted represented a compromise, but a compromise with a raison d'etre. Any single measure was obviously indefensible. Smaller institutions argued that core journals were "controlled" by larger institutions, but RIE was not, so it was added. Public institutions noted that foundation grants are more likely to be made to private colleges and universities, but data on governmental grants and contracts were available through SSIE. To the best of its ability and resources, the RITE staff attempted to diversify the secondary sources which were employed to "catch-up" as many products in the yield net as was possible.

Nonetheless, the data to be reported in the subsequent sections of this chapter are not unassailable. It is easier to track KP than KU products. Some of the measures actually employed can be used in only limited ways because of logistical problems in gathering and interpreting the data which were not overcome by the researchers. However, these measures of productivity are several giant steps beyond queries to deans or faculty members about the high producing institutions or top graduate programs in their field--the basic technique that has been used in the past in assessing institutional productivity in higher education.

This chapter will turn first to a gross analysis of SCDE productivity by institutional types; then analyze SCDEs as institutions by levels of productivity; and, finally, return to the special analyses of degree sources for SCDE faculty and KPU productivity in education outside SCDEs.

Relative Performance of SCDE Types on the Productivity Measures

Orientation to the Data

Twelve institutional types were formed for use in reporting the data from the productivity studies and are described in Table V-1. Three variables were employed in constructing the types, i.e., degree level offered in education (doctoral, masters, baccalaureate); institutional control (public, private); and likely involvement in educational KPU (more likely, less likely). The identification and application of the first two variables is obvious. "A" and "B" institutions are doctoral level SCDEs; "C" and "D" types are masters level institutions; "E" and "F" have baccalaureate programs in education. Each is subsequently divided into public and private groups. The final distinction is less obvious. At the doctoral level, "A" and "B" type institutions were separated on the basis of previous empirical studies of involvement in R and D activities. At the masters and baccalaureate levels, the distinction was made on the basis of several characteristics of institutions, i.e., involvement with the national teacher education community (accreditation by the National Council for Accreditation of Teacher Education and membership in the American Association of Colleges for Teacher Education), size of SCDE faculty, size of student enrollment in education, percentage of all students at the institution who are enrolled in degree programs in education, and certain specialized information available on the SCDEs, e.g., special purpose orientation. These data were employed to distinguish between SCDEs that appeared to have a strong programmatic commitment to teacher education and those that did not. The assumption was made that this institutional commitment to teacher education as a field of study would likely be reflected in institutional involvement in KPU. Thus, the "C" type public masters institutions were

TABLE V-1

INSTITUTIONAL TYPES IN RELATION TO RITE CATEGORIES: NUMBER OF INSTITUTIONS BY TYPE IN POPULATION

Institutional Types	RITE Categories Included in Type[1]	Number of Institutions in Population[2]
A. Res. Center Inst.		
Public	1A1	23
Private	2A1	11
B. Other Inst. for Adv. Graduate Study		
Public	1A2, 1B, 1C, 1X	89
Private	2A2, 2B, 2C, 2X	40
C. Pre/In-Service Tchr. Education Centers		
Public	3A1, 3A2, 3A3	183
Private	5A1, 5A2, 5A3	75
D. Other Pre/In-Service Tchr. Educ. Inst.		
Public	3B, 3C, 3X, 4A1-4X	101
Private	5B, 5C, 5X	203
E. Pre-Service Teacher Education Centers		
Public	6A1, 6A2, 6A3	32
Private	8A1, 8A2, 8A3	104
F. Other Pre-Service Tchr. Educ. Inst.		
Public	6B, 6C, 6X, 7A1-7X	60
Private	8B, 8C, 8X	446
	Total	1,367

[1] These are the hypothetical categories. In practice some were empty sets.

[2] School year 1974-75 (approved program lists of state directors of teacher certification--in the case of Nevada which does not maintain a program approval system, the teacher education institutions listed by the SEA were included).

(1) more homogeneous as an SCDE type and (2) predicted to be more involved in KPU than the "D" type public masters institutions; similarly for "E" and "F."

As can be seen from Table V-1, the 12 types were formed by grouping together 46 institutional categories that had been employed earlier in the study for sampling purposes and which constitute the RITE category system; this categorization was designed to maximize institutional homogeneity within groups. The original category system was simply too cumbersome to retain for reporting purposes. It is, however, fully explicated in Appendix C.

Table V-1 also provides information about the number of institutions in the national population of SCDEs (N = 1,367) that fall into each type.

Education Journals Study

Tables V-2 and V-3 summarize the data from the journals study including (1) the number of SCDEs by institutional type to which journal entries were credited, (2) the number of credits by institutional type and by faculty member (estimated), and (3) the per cent of total SCDE journal credits accumulated by each institutional type. A number of observations may be made based on these data:

1. In terms of institutional productivity, without reference to faculty size, the data demonstrate clearly the dominance in journal publication of the doctoral level institutions. Roughly three of every four publications was traced to these 153 SCDEs.

2. The "A-Public" institutions generate average institutional contributions well in excess of all other types, almost doubling the total average output of the next largest competitor, the "A-Privates." "B" type SCDEs produce considerably less than "A" type institutions, not surprising

TABLE V-2

CONTRIBUTIONS BY SCDE FACULTY TO 26 CORE JOURNALS IN EDUCATION OVER A THREE YEAR TIME PERIOD BY INSTITUTIONAL TYPE

Type	Control	Total Number of SCDEs in Category	Number of SCDEs With Some Journal Credits			Mean Number of Credits Per SCDE in Category			Estimated Credits Per SCDE Faculty Member[1]
			Practitioner Journals	Research Journals	Total	Practitioner Journals	Research Journals	Total	
A	Public	23	23	23	23	32.69	25.70	58.39	.52
	Private	11	11	11	11	16.22	14.29	30.51	.48
B	Public	89	82	80	86	10.59	5.13	15.72	.14
	Private	30	29	23	30	5.64	2.42	8.06	.30
C	Public	183	113	73	132	2.59	0.71	3.30	.07
	Private	75	30	14	35	0.61	0.25	0.86	.06
D	Public	91	40	27	47	1.17	0.57	1.74	.06
	Private	169	35	23	47	0.32	0.17	0.49	.07
E	Public	32	9	4	11	0.39	0.08	0.47	.04
	Private	104	12	6	17	0.20	0.05	0.25	.05
F	Public	54	16	10	22	1.60	0.21	1.81	.23
	Private	365	23	12	33	0.08	0.05	0.13	.03
All Xs		141	10	4	12	0.11	0.04	0.15	—[2]
Total		1,367	433	310	506	2.11	1.13	3.24	—[2]

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[1] This "artificial" figure was constructed by dividing the mean credits per SCDE in each category by the median full time SCDE faculty in the category. The basis for the latter estimate is described in Chapter III, pp. III-16-18. It provides a rough size correction for the total credits by institutional type.

[2] Data were not collected from "Type X" institutions so these calculations were not possible.

TABLE V-3

PER CENT OF JOURNAL CREDITS PRODUCED BY SCDE INSTITUTIONAL TYPES

Type	Control	Per Cent Produced by Each Institutional Type		
		Practitioner Journals	Research Journals	Total
A	Public	26.07	38.19	30.29
	Private	6.19	10.15	7.52
B	Public	32.68	29.49	31.65
	Private	5.87	4.70	5.45
C	Public	16.41	8.41	13.61
	Private	1.58	1.20	1.44
D	Public	3.69	3.32	3.56
	Private	1.86	1.81	1.84
E	Public	0.43	0.16	0.34
	Private	0.70	0.34	0.58
F	Public	2.99	0.73	2.20
	Private	0.99	1.13	1.04
All Xs		0.54	0.37	0.48
Total		100.00	100.00	100.00

in view of the means by which the "As" were identified initially, e.g., with comparable faculty size, the "A-Publics" were credited with almost four times the total publications of the "B-Publics."

3. The institutional contribution of the "B-Publics" as a group is very high (31.7 per cent of all publication credits) although the totals per institution and per faculty member are relatively low.

4. When faculty size is taken into account, the wide difference between the "A-Publics" and "A-Privates" disappears; and the "B-Privates" emerge as more productive per faculty member than the "B-Publics."

5. In a quantitative sense, journal publications are for all practical purposes restricted to the doctoral level institutions and the "C-Publics." These institutions represent less than 25 per cent of the institutional population but more than 88 per cent of the publications in core journals.

6. For all SCDE types, the productivity is higher in practitioner-oriented than research-oriented journals. Outside the research center institutions, the doctoral level SCDEs accumulated over twice as many practitioner as researcher credits. The tendency is even greater for non-doctoral institutions ranging up to 8:1 for the surprisingly productive "F-Public" group. While the research center institutions produce 48.3 per cent of the research credits they produce only 32.3 per cent of the practitioner credits.

7. Nevertheless, it is the case that research oriented journal writing and practitioner-oriented journal writing seem to be linked at least among the doctoral level institutions. This linkage is affirmed by the fact that almost all doctoral institutions have both practitioner and research credits. Even the research center institutions have a substan-

tial number of practitioner credits, in fact, exceeding the number of research credits on the average. It does not seem to be true that research center institutions "specialize" in one form of publication to the exclusion of the other.

RIE Study

Summary data on the RIE study are displayed in Tables V-4 and V-5 including (1) the number of SCDEs by institutional type to which RIE entries were credited, (2) the number of credits by institutional type and by faculty member (estimated), and (3) the per cent of total RIE credits accumulated by each institutional type. A number of observations about these tables seem relevant:

1. The mean number of entries per institution is small in contrast with the number of journal entries in Table V-2, despite the ease with which a document can be entered in the ERIC system, and despite the fact that the journal table reflected but 26 journals while Table V-4 reflects all RIE entries.[1] SCDEs do not use RIE very extensively, a point that will be reinforced in a later section of this chapter.

2. The dominance of the doctoral level institutions is demonstrated by the RIE data identically to the journals study; 74.9 per cent of the total in both instances. As a matter of fact, the research center institutions as a whole and the "A-Privates" in particular have a higher percentage of the total RIE credits than journal credits.

3. The claim often voiced to the RITE staff during site visits that non-doctoral, particularly smaller institutions, turn to publication

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[1] The RIE entries were for a two year period rather than the three years covered by the journal study. This, however, is a minor correction when placed against the hundreds of journals omitted from that study.

TABLE V-4

CONTRIBUTIONS BY SCDE FACULTY RECORDED IN *RESOURCES IN EDUCATION* OVER A TWO YEAR TIME PERIOD BY INSTITUTIONAL TYPE

Type	Control	Total Number of SCDEs in Category	Number of SCDEs With Some RIE Entries			Mean Number of Credits Per SCDE in Category			Estimated Credits Per SCDE Faculty Member[2]
			KP	KU	Total[1]	KP	KU	Total[1]	
A	Public	23	23	22	23	10.39	13.34	24.84	.22
	Private	11	10	10	11	7.36	10.44	18.12	.29
B	Public	89	57	64	78	2.02	3.69	5.87	.05
	Private	30	10	13	17	1.03	0.96	2.06	.08
C	Public	183	40	73	96	0.43	1.04	1.57	.03
	Private	75	7	14	16	0.11	0.49	0.65	.04
D	Public	91	10	19	27	0.16	0.32	0.54	.02
	Private	169	6	15	20	0.04	0.09	0.13	.02
E	Public	32	2	9	10	0.06	0.33	0.39	.03
	Private	104	0	9	9	0.00	0.07	0.07	.01
F	Public	54	1	6	7	0.02	0.13	0.15	.02
	Private	365	4	8	13	0.01	0.02	0.03	.01
All Xs		141	2	1	2	0.04	0.01	0.05	--[3]
Total		1,367	172	263	329	0.48	0.80	1.32	--[3]

[1] Total includes several entries classified as KPU.

[2] Mean credits per SCDE divided by median faculty. See Chapter III.

[3] Data were not collected from "Type X" institutions so these calculations were not possible.

TABLE V-5

PER CENT OF RIE CREDITS PRODUCED BY SCDE INSTITUTIONAL TYPE

Type	Control	Per Cent Produced by Each Institutional Type		
		KP	KU	Total[1]
A	Public	36.75	28.15	31.57
	Private	12.46	10.53	11.01
B	Public	27.65	30.14	28.86
	Private	4.77	2.64	3.41
C	Public	11.99	17.52	15.87
	Private	1.32	3.40	2.67
D	Public	2.15	3.07	2.74
	Private	1.08	1.33	1.19
E	Public	0.30	0.97	0.69
	Private	0.00	0.69	0.42
F	Public	0.15	0.64	0.45
	Private	0.61	0.73	0.72
All Xs		0.77	0.18	0.39
Total		100.00	99.99	99.99

[1] Total includes not only KP and KU but a small number of contributions classified as both KP and KU.

outlets such as RIE because they find it very difficult to gain access to the refereed journals (and particularly the prestigious journals included in the journal study) seems not to be borne out. These institutions do not make either a relatively or absolutely greater contribution within RIE than within the journals.

4. The tendency noted in the journals study for KU entries (roughly comparable to practitioner journals) to exceed KP entries (roughly comparable to research journals) seems to be confirmed but the differences are not as pronounced. This is of course counter to expectations; a reasonable explanation may lie in the fact that all Federal research reports are included in RIE.

5. Again, it is difficult to argue the specialization of institutions as category types in KP or KU. Research center institutions are clearly engaged in both activities. The "B-Privates" had more KP than KU credits. Below the doctoral level, KU productivity is more pronounced.

Books in Education Study

Summary data on the study of books in education are presented in Tables V-6 and V-7. For this study, credits were accumulated in three categories, to wit, (1) SCDE books, i.e., books intended primarily for use by students and faculty members in SCDEs; (2) text books, i.e., books written for use as texts in elementary or secondary schools or in post-secondary institutional settings other than SCDEs; and (3) other books in education, typically commentaries on education issues or problems or more general books in the field.

The interpretation of book credits is more difficult than journal or RIE credits because of the relatively smaller number of entries. Although approximately 1,300 books were reviewed by the 26 source journals over the

TABLE V-6

SELECTED[1] EDUCATION BOOK CREDITS ACCUMULATED BY SCDE FACULTY OVER A THREE YEAR TIME PERIOD BY INSTITUTIONAL TYPE

Type	Control	Total Number of SCDEs in Category	Number of SCDEs With Some Book Credits				Mean Number of Credits Per SCDE in Category				Estimated Credits Per SCDE Fac. Member[2]
			Books for Use in SCDEs	Text Books	Gen. Books in Education	Total	Books for Use in SCDEs	Text Books	Gen. Books in Education	Total	
A	Public	23	15	3	4	17	0.90	0.08	0.30	1.28	0.011
	Private	11	4	1	4	6	0.27	0.01	0.68	0.96	0.015
B	Public	89	8	3	7	16	0.07	0.02	0.07	0.16	0.001
	Private	30	5	0	1	6	0.17	0.00	0.03	0.20	0.007
C	Public	183	6	3	0	9	0.04	0.01	0.00	0.05	0.001
	Private	75	1	1	0	2	0.01	0.02	0.00	0.03	0.002
D	Public	91	1	0	0	1	0.00	0.00	0.00	0.00	0.000
	Private	169	1	0	0	1	0.00	0.00	0.00	0.00	0.000
E	Public	32	0	0	0	0	0.00	0.00	0.00	0.00	0.000
	Private	104	0	0	0	0	0.00	0.00	0.00	0.00	0.000
F	Public	54	0	0	0	0	0.00	0.00	0.00	0.00	0.000
	Private	365	0	0	2	2	0.00	0.00	0.27	0.27	0.001
All Xs		141	0	0	0	0	0.00	0.00	0.00	0.00	—[3]
Total		1,367	41	11	18	60	0.03	0.00	0.02	0.05	—[3]

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[1] These credits included only books reviewed in 26 core journals in education.

[2] This "artificial figure" was constructed by dividing the mean credits per SCDE in each category by the median full time SCDE faculty in the category. The basis for the latter estimate is described in Chapter III, pp. III-16-18.

[3] Data were not collected from "Type X" institutions so these calculations were not possible.

TABLE V-7

PER CENT OF TOTAL BOOK CREDITS ACCUMULATED BY SCDE INSTITUTIONAL TYPE

Type	Control	Per Cent in Each Institutional Type			
		Books for Use in SCDEs	Text Books	General Books in Education	Total
A	Public	47.31	27.84	30.22	40.15
	Private	6.88	1.65	32.38	14.44
B	Public	14.13	33.23	28.76	20.46
	Private	11.46	0.00	4.32	8.17
C	Public	14.90	19.92	0.00	10.66
	Private	2.29	17.37	0.00	2.94
D	Public	0.76	0.00	0.00	0.45
	Private	2.29	0.00	0.00	1.36
E	Public	0.00	0.00	0.00	0.00
	Private	0.00	0.00	0.00	0.00
F	Public	0.00	0.00	0.00	0.00
	Private	0.00	0.00	4.32	1.36
All Xs		0.00	0.00	0.00	0.00
Total		100.02	100.01	100.00	99.99

three year period involved, only a small portion of these were unequivocally tracked to SCDEs. As will be seen in a subsequent section of this paper, more than 40 per cent of all book entries had to be classified as "University Undesignated," i.e., not traceable to a particular known department or other sub-unit. It is likely that many of these books in fact originated in SCDEs but of course the data do not support a specific claim.[1]

While the absolute numbers in Table V-6 thus cannot be used as a measure of the total volume of book production by SCDEs, they nevertheless do have relative significance for the purpose of comparing types of institutions and production of different kinds of books. The following observations seem appropriate:

1. Doctoral level institutions again account for a very high percentage of the total productivity (83 per cent) and the 34 research center institutions alone accumulated 55 per cent of all the credits.

2. Text book production was notably high in the "B-Publics" and the "C-Publics and Privates." In neither of the previous measures have the "C" institutions approached 38 per cent of the total productivity in any sub-category.

3. "A-Publics" dominate the production of texts used in SCDEs and are represented strongly in other categories. The private research center institutions, in contrast, are weakly represented in the textbook field but strongly represented in the category of general books in education.

4. The profile of the source of books of various types is sharper than either the contributions to education journals or RIE, to wit:

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[1] An effort is made to estimate the proportion of the "University Undesignated" category assignable to SCDEs in the last section of this chapter.

a) Eighty-eight per cent of the texts used in SCDEs were credited to "A-Publics," " Bs ," and "C-Publics." "A-Privates" were notable by absence.

b) Ninety-eight per cent of the other texts were credited to only four institutional types, i.e., "A-Publics," "B-Publics," "C-Publics," and "C-Privates." Doctoral level private institutions accounted for only two per cent of the total.

c) Three institutional types, i.e., "A-Public," "A-Private," and "B-Public,"accumulated 91 per cent of the credits for general books in education.

Foundation Grants Study

The data relevant to the study of grants by private foundations to SCDEs for KPU activity in education are displayed in Tables V-8 and V-9. These data include new grants during a three year time period reported by the granting agency to the Foundation Center. Unsurprisingly, most such grants are made to doctoral level SCDEs (69.5 per cent), but there are some patterns which differ substantially from the data of the earlier productivity studies, to wit:

1. Private colleges and universities fare considerably better than their public counterparts. In the doctoral research center institutions, for example, the "A-Privates" received more grants and more funds than the "A-Publics" although there are half as many "A-Privates" in the category. "B-Privates" received substantially larger support than "B-Publics." Among the "Type C" institutions the private colleges with less than half the number of institutions received double the grants and funds. Below this level, the trend does not hold but the number of grants involved is small in number for all the "D," "E," and "F" type SCDEs.

TABLE V-8

NUMBER AND SIZE OF GRANTS BY PRIVATE FOUNDATIONS TO SCDEs FOR KPU PROJECTS IN EDUCATION OVER A THREE YEAR TIME PERIOD BY INSTITUTIONAL TYPE

Type	Control	Total Number of SCDEs in Category	Number of SCDEs Receiving Grants	Total Number of Grants Received in the Category	Mean Number of Grants Per Recipient SCDE	Total Dollar Value of Grants in Category (000)	Mean Dollar Value Per Recipient SCDE (000)
A	Public	23	12	33	2.75	4,183	349
	Private	11	7	42	6.00	5,213	745
B	Public	89	20	35	1.75	1,874	94
	Private	30	8	22	2.75	3,334	417
C	Public	183	8	10	1.25	770	96
	Private	75	9	20	2.22	1,415	157
D	Public	91	6	9	1.50	1,566	261
	Private	169	6	6	1.00	194	32
E	Public	32	1	1	1.00	300	300
	Private	104	1	1	1.00	13	13
F	Public	54	3	4	1.33	403	134
	Private	365	4	4	1.00	197	49
All Xs		141	2	3	1.50	82	41
Total		1,367	87	190	2.18	19,544	225

TABLE V-9

PER CENT OF FOUNDATION GRANTS TO SCDEs BY INSTITUTIONAL TYPE

Type	Control	Per Cent of Grants	Per Cent of Funds
A	Public	17.37	21.40
	Private	22.11	26.67
B	Public	18.42	9.59
	Private	11.58	17.06
C	Public	5.26	3.94
	Private	10.53	7.24
D	Public	4.74	8.01
	Private	3.16	0.99
E	Public	0.53	1.53
	Private	0.53	0.07
F	Public	2.11	2.06
	Private	2.11	1.01
All Xs		1.58	0.42
Total		100.03	99.99

2. There is a clear tendency for foundations to continue to invest in those institutions in which they have already placed grants. Even in the most favored categories, "A-Public" and "A-Private," we find that 15 of 34 institutions (11 public and four private) received no grants at all, but of those that did, the mean number of grants received was 2.75 for publics and *6.00* for privates. "B" and "C" type institutions also show this "repeater" effect; below that level, however, it seems to be true that institutions receive but one grant.

3. The significance of foundation grants and contracts in the support

of KPU activity in education varies sharply by institutional category. This support is the "life-blood" of KPU support in many of the private research center institutions. The recipient institutions in this category received an average of $745,000 in support and six grants in the period studied. The size and number of grants was smaller in the public research center universities (almost half received no support) but for the recipient institution group, the support is significant. A good share of the KPU activity in the "B and C-Privates" surely comes from this source. The total value of the grants to the "B-Private" universities rivals that to the "A-Publics"--a most unusual phenomenon among the productivity studies. In contrast, the "B and C-Publics" would feel little effect if foundation grants were eliminated. The size of grants to these institutions is small and 69 of 89 "B-Publics" and 175 of 183 "C-Publics" received no grants.

Governmental Grants and Contracts Study

A summary of the grants and contracts in SCDEs from sources other than private foundations (almost exclusively Federal government agencies) is displayed in Tables V-10 and V-11. This information covers a 21 month time period and includes grants and contracts reported to the Smithsonian Science Information Exchange. Several observations are in order:

1. The concentration of governmental grants and contracts in support of KPU in education is higher than the foundation grants in research center institutions (55.9 per cent to 39.5 per cent) and in all doctoral level institutions (86.5 per cent to 69.5 per cent). Investment of Federal funds in support of KPU in education is pretty well restricted to the doctoral level SCDEs. There is a small number (11) of "C-Public" institutions that have attracted funds of significant size (14.7 per cent of the total).

2. The public-private dichotomy noted in the private foundation grants

TABLE V-10

NUMBER AND SIZE OF GRANTS AND CONTRACTS BY GOVERNMENTAL AGENCIES TO SCDEs FOR KPU PROJECTS IN EDUCATION OVER A TWENTY-ONE MONTH TIME PERIOD BY INSTITUTIONAL TYPE

Type	Control	Total Number of SCDEs in Category	Number of SCDEs Receiving Grants or Contracts	Total Number of Grants and Contracts in the Category	Mean Number of Grants and Contracts Per Recipient SCDE	Total Dollar Value of Grants and Contracts in the Category (000)	Mean Dollar Value Per Recipient SCDE (000)
A	Public	23	21	82	3.90	8,190	390
	Private	11	10	55	5.50	3,927	393
B	Public	89	37	64	1.73	5,260	142
	Private	30	7	11	1.57	1,376	197
C	Public	183	11	13	1.18	3,357	305
	Private	75	4	5	1.25	203	51
D	Public	91	7	7	1.00	337	48
	Private	169	3	3	1.00	54	18
E	Public	32	0	0	--	0	--
	Private	104	1	1	1.00	9	9
F	Public	54	1	1	1.00	41	41
	Private	365	3	3	1.00	36	12
All Xs		141	0	0	--	0	--
Total		1,367	105	245	2.33	22,790	217

TABLE V-11

PER CENT OF GOVERNMENTAL GRANTS AND CONTRACTS TO SCDEs BY INSTITUTIONAL TYPE

Type	Control	Per Cent of Grants and Contracts	Per Cent of Funds
A	Public	33.47	35.94
	Private	22.45	17.23
B	Public	26.12	23.08
	Private	4.49	6.04
C	Public	5.31	14.73
	Private	2.04	0.89
D	Public	2.86	1.48
	Private	1.22	0.24
E	Public	0.00	0.00
	Private	0.41	0.04
F	Public	0.41	0.18
	Private	1.22	0.16
All Xs		0.00	0.00
Total		100.00	100.01

is not apparent in the governmental grants. Almost all research center institutions (31 of 34) are popular grantees; they receive multiple grants (four to the publics, five--six to the privates); and the average grants are about the same, circa $400,000. "B-Publics" are more competitive than the "B-Privates" but this is consistent with the evidence of all the productivity studies other than private foundation grants.

3. Governmental grants seem more task-oriented than directed toward capacity building, i.e., the money follows the resources already in the SCDEs. Of the 245 grants and contracts reported, 137 were located in

research center institutions and 64 of the remainder were in the "B-Public" universities. Only 20 grants during this 21 month time period were made to the 1031 SCDEs outside the doctoral and public masters institutional categories.

4. In the institutional categories in which the governmental grants and contracts are concentrated, this source of support is a critical factor in the KPU programs of the SCDEs. Research center institutions obviously rely heavily on this external support for the operation of their KPU activities--almost all receive funds in the form of multiple grants and contracts at a level approaching $400,000 per SCDE.

Summary and Conclusions

The evidence is overwhelming that educational KPU productivity in the United States, whether measured by direct products such as journal articles, contributions to RIE, or books, or by indirect measures such as the willingness of foundations or other funding agencies to invest funds, is concentrated in the doctoral level institutions and particularly in those which were assigned membership in the research center institution category (type "A"). This fact can best be appreciated by reference to Table V-12, which provides institutional type rankings on five representative indexes for the five productivity studies. First rank in every category is held by either the "A-Public" or "A-Private" category; moreover, the sum of ranks for these two categories is very much lower than the sum of ranks for any other category.

The data divide institutions into "have" and "have not" categories so far as educational KPU productivity is concerned. Furthermore, the "haves" divide into two further sub-categories, which might be termed the "central" ("A" Publics and Privates) and "peripheral" ("B" Publics and Privates and

TABLE V-12

RANKS OF SCDEs BY INSTITUTIONAL TYPE ON FIVE STUDIES OF PRODUCTIVITY IN KPU IN EDUCATION

Type	Control	Institutional Ranks by Category on Mean of Productivity Credits					Sum of Ranks
		Education Journals	RIE Entries	Education Books	Funds from Foundations	Funds from Gov't. Agencies	
A	Public	1	1	1	3	2	8
	Private	2	2	2	1	1	8
B	Public	3	3	5	9	5	25
	Private	4	4	4	2	4	18
C	Public	5	5	6	8	3	27
	Private	8	6	7	6	6	33
D	Public	7	7	10.5	5	7	36.5
	Private	9	10	10.5	12	9	50.5
E	Public	10	8	10.5	4	12.5	46.0
	Private	11	11	10.5	13	11	56.5
F	Public	6	9	10.5	7	8	40.5
	Private	13	13	3	10	10	49.0
All Xs		12	12	10.5	11	12.5	58.0

and "C-Publics") producers. The central producers clearly dominate; they contribute the most products of KPU activity, and they are the most favored in receipt of external funds.

This state of affairs poses several dilemmas. Planners in foundation, governmental, and other funding agencies must decide whether to make investments pointed toward building capability in the "have nots" (improving the capability of the peripheral producers), or pointed toward further increasing the productivity of the tested and proved central producers.

Planners in individual institutions also face difficult questions: in the "have nots," whether to attempt development of a hitherto neglected function which will obviously be costly and which has not historically been supported by outside funders; in the "haves," whether to continue to invest in "proven areas" at a time when demands from other areas may be high and the need may be great. Should one continue to improve areas of excellence or make serious efforts to upgrade deficient areas? The immediate opportunities for external funding will surely be better in the proven areas of productivity whether or not this strategy is optimal for comprehensive institutional development.

The data seem to contravene the often-stated observation that a substantial amount of hidden KPU activity is taking place outside the more traditional centers of KPU productivity. If these SCDEs are engaged in this activity it is too well hidden to be recognized even in such sources as RIE in which the monitoring of entries can hardly be argued as the reason for excluding products from these sources.

Finally, the extent to which educational KPU is dependent upon outside funding is more evident from these data than ever before. Apparently funds on the order of at least \$23 to \$25 million are annually being invested in educational KPU from non-institutional sources, i.e., so-called "soft money." If one takes a figure of \$25,000 as necessary to support annually one full-time faculty member engaging in KPU (salary, overhead, clerical support), these funds are supporting roughly 1,000 FTE KPU workers, approximately one out of every 34 SCDE faculty. While the proportion of one of 34 is not very large in an absolute sense, the estimated total of 1,000 persons engaged in educational KPU is impressive. Not only would withdrawal of these funds create a severe fiscal crisis for the SCDEs involved but it would reduce enormously the KPU effort underway in the United States. Educational KPU depends on these funds; without them the KPU effort would be emasculated.

Classification of SCDEs by KPU Productivity

In the preceding section of this chapter and in preceding papers in this publications series, the reader has become accustomed to two systems of institutional classification of SCDEs imposed *a priori* by the RITE staff to reflect (1) common criteria employed in higher education for institutional classification, e.g., degree level or control, and (2) likely involvement of SCDEs in KPU activities, e.g., research center institutions as identified in previous studies of SCDEs. The accumulated productivity studies, however, present an opportunity to re-classify SCDEs, not on the bases of guesses about perception of, or even previous studies of their involvement in KPU but, rather, on the basis of the products from these institutions which appear in standard KPU outlets in education.

Evidence of Productivity Used in the Classification

All the productivity studies were not equally useful or usable in classifying KPU output from SCDEs. First, as was noted in the introductory section, the degree study involved a productivity measure sufficiently different from the other yield measures so that it will be held for reporting in a separate and later section of this chapter. Second, in certain of the productivity studies, i.e., the conventions and books studies, colleges and university sources could be identified, but individual SCDEs within these institutions frequently could not be identified. Consequently, although these studies will be used in other appropriate sections in this chapter, they could not be used in the specific task of re-classifying SCDEs.

Four sources of evidence were used to define KPU productivity in individual SCDEs:

1. Number of grants and contracts for KPU projects from public and private sources.

2. Total dollar value of grants and contracts for KPU projects from public and private sources.

3. Number of publication credits by faculty in the 26 "core" or high circulation journals in education.

4. Number of entries by faculty in the RIE file of ERIC.

Categories and Rules for Classification

The process for establishing a classification system was, simply stated, to begin at both extremes of productivity--first logically, then empirically--and to work toward the undefined middle group. The investigators sought to establish rules with convincing face validity so as to optimize the utility of the classification for readers and planners.

The first group identified was the "Non-Producers." The rule governing the category is straightforward:

1. Non-Producers are SCDEs which accumulated no credits in any of the four criterion areas.

The second group, called "Low Producers," consists of three sub-types. The first sub-type, called "Low Producers--Idiographic," displays no visible institutional involvement in KPU (i.e., no grants or contracts for KPU) and individual involvement at such a low level that it was almost surely the result of a single faculty member. The rule governing the category is:

2. Low Producers--Idiographic are SCDEs with no grants or contracts for KPU projects and with no more than 1.0 credit in either journal publications or RIE.

The second sub-group was called "Low Producers--Minimal." The only distinction between this sub-group and the previous noted group was the existence of one grant or contract for KPU activity. Undoubtedly this sub-group also represents only idiographic productivity, but a grant or contract does involve some level of institutional sanction, if not encouragement, which is not normally involved in a journal publication or RIE credit. The rule for this sub-group is:

3. Low Producers--Minimal are SCDEs with a single grant or contract for KPU activity in which there was no more than 1.0 credit in either journal publications or RIE.

Finally, at the top of the low end of the continuum was a sub-group labeled "Low Producers--Occasional." These institutions may or may not have had contract or grant activity (they never had more than one) but they did report a multiple entry, i.e., more than 1.0 credit, in either journals or RIE. To insure the concept that a low producing institution was indeed low, the multiple entry in one measure had to be matched with no credits in the other. Again, the best guess is that the level of productivity in this group is the product of an individual but such an inference is somewhat less strong than for rules two and three above. The rule is:

4. Low Producers--Occasional are SCDEs with zero or one grant or contract for KPU activity in which the credits for either journals or RIE was zero and the credits in the other category did not exceed 3.0.

The categories in the system so far range from no evidence of KPU yield to an SCDE with one grant or contract for KPU activity and 3.0 credits in either journals or RIE. The investigators hesitated to go above this level in describing low institutional productivity since the danger arises of penalizing smaller institutions simply because they have few faculty members in the SCDE. At this level of productivity, however, the investigators felt that most observers would agree with the assertion that

SCDEs are contributing little in the KPU arena in education. The rules were having a remarkable effect on the population of 1,367 SCDEs, however; 1,106 had already been classified by applying these rules!

Attention was then turned to the other end of the continuum. Who were the high producers? Again, it seemed useful to distinguish among levels of high productivity. The first sub-group was labeled "High Producers--KPU Centers," to correspond roughly to the label "research center institutions," which was used in the original category system. The criteria for this group should reflect persistent involvement in KPU project activity. As a matter of fact, the repeated selection of an institution to carry out projects under grants or contracts is at least a normative quality index applied by judges in the field of education. The publications activity level should be high and the institution should be held to at least a reasonable level of productivity in core journals since this too is some measure of quality as imposed by peers in the field. The actual rule employed for this category is:

5. High Producers--KPU Centers are SCDEs with five or more grants or contracts for KPU activity totaling funding of $750,000 or more;[1] or with multiple grants or contracts for KPU activity plus 50 or more credits in the 26 "core" journals in education; or multiple grants with 35 or more credits in journals plus 25 or more credits in RIE.

A second group was identified as "High Producers--Other Outstanding Producers." In examining the profile of productivity it was apparent that there was a group of institutions which was persistent in accumulating multiple credits across the measures or was so outstanding in one criterion area that the institutional commitment to KPU seemed undeniable. The rule governing this category is:

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[1] As a matter of interest, all the institutions that qualified on the basis of this criterion also met one or both of the alternative criteria.

6. High Producers--Other Outstanding Producers are SCDEs with multiple grants or contracts for KPU activity totaling funding of $250,000 or more; or 25 journal credits in the "core" journals; or 17.5 or more journal credits plus 12.5 or more credits in RIE.

The final sub-group of high producers was termed "High Producers--KPU Actives." Some readers may be more comfortable in considering such SCDEs in the middle group of producers. Their individual profiles of KPU yield exhibit multiple credits but, in some instances, the productivity per faculty member in the SCDE is quite low. The rule governing the category is:

7. High Producers--KPU Actives are SCDEs with multiple grants or contracts for KPU activity totaling $100,000 or more; or 15 or more credits in "core" journals; or 10 or more credits in journals plus 7.5 or more RIE credits.

Throughout the first seven categories, an effort was made to avoid the question of SCDE size in relation to KPU yield. The target of this study is the SCDE as an institution; not the faculty member as an individual. The low producers were so low that most readers are probably content to ignore the size of the institution as a significant variable. At the other extreme, categories six and seven are so active that it seems reasonable to classify them as high producers even if they have large SCDE faculties. However, there were some other institutions with unusual yield profiles in which small size obviously affected the institutions' abilities to break into the high producer category. So as not to lose sight of these SCDEs a category of "Unusual Producers"[1] was formed. The unusual productivity was determined by these rules:

8. Unusual Producers are SCDEs in RITE categories with small median faculty size in which the level of KPU activity in the criterion areas was so high that the institution would have qualified under rules five, six, or seven above with the application of a size correction of *circa* size 50 per cent of a true size correction; or an SCDE in a RITE category with typically low KPU activity which was producing at a rate several times that of the category.

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[1] The reader should note that the "Unusual Producers" are not high in

The remaining SCDEs were classified as "Middle Range Producers." The observation should be made that the level of activity in KPU necessary to qualify for this category is quite low. In an absolute sense, many readers might be more comfortable in classifying these SCDEs as low producers, but in a relative sense among the population of SCDEs the middle range producers represent the 80th to 90th percentile of the population.

9. Middle Range Producers are SCDEs not covered by any of the eight rules enumerated previously.

Categories of SCDEs by KPU Productivity

The application of these rules to the population of 1,367 SCDEs resulted in the distribution across categories displayed in Table V-13.

TABLE V-13

CLASSIFICATION OF 1,367 SCDEs BY LEVEL OF KPU PRODUCTIVITY

Category	Number of Institutions In Category		Per Cent In Category	
High Producers	---	99	---	7.24
KPU Centers	24	---	1.76	---
Other Outstanding Institutions	36		2.63	
KPU Actives	39		2.85	
Unusual Producers	---	26	---	1.90
Middle Range Producers	---	136	---	9.95
Low Producers	---	333	---	24.36
Occasional	94	---	6.88	---
Minimal	35		2.56	
Idiographic	204		14.92	
Non-Producers	---	773	---	56.55
Total	---	1,367	---	100.00

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productivity in an institutional sense. They do, however, represent instances of commitment to KPU which may be of significance to policy planners. Investments in these institutions (especially in individuals) may have high pay-off.

In contrast with the institutional questionnaire responses from the SCDEs and the individual questionnaire responses from faculty in SCDEs as reported in chapters III and IV, which emphasized KPU as of institutional and individual interest to a large proportion of SCDEs and SCDE faculty, the productivity studies indicate that over four of five SCDEs are little involved or uninvolved in KPU activity. Even admitting the self-evident proposition that the productivity measures employed did not detect all evidences of KPU productivity, and were more sensitive to KP than to KU, the outcome is still startling and disturbing. It was after all not inordinately difficult to move out of the low producer category: two grants, two journal credits, a combination of one journal credit and one RIE credit, or a total of four RIE credits would have been sufficient to do it. Moreover, very liberal definitions were employed in interpreting a grant or contract as falling in the KPU arena, and grants of even a few hundred dollars were counted. Practitioner-oriented as well as researcher-oriented journals were included in the studies and credits were granted for reviews and essays as well as articles. RIE was included because it picks up fugitive material and is less rigid in ruling out entries than many journals. Despite this, most SCDEs did not accumulate any KPU credits. Most observers would probably agree that at best the 125 institutions in the high and unusual producer categories combined represent the current institutional involvement of SCDEs in KPU.

Comparing the Productivity Measures with the RITE-SCDE Category System

The classification of SCDEs by productivity resulted in some anomalies in contrast with the a priori categories developed by the RITE staff. The 34 research center institutions became 24 high producer--KPU centers, for example. The full display of KPU producers by institutional type is presented in Table V-14. Some observations are in order:

TABLE V-14

CROSS CLASSIFICATION OF SCDEs BY A PRIORI RITE SELECTED CATEGORY SYSTEM AND LEVEL OF KPU PRODUCTIVITY BASED ON PRODUCTIVITY STUDIES

Level of Productivity	Category Type													Total
	A		B		C		D		E		F		X	
	(Rsch. Center)		(Other Doctoral)		(Masters-Tchr. Ed. Centers)		(Masters--Other)		(Bac.-Tchr. Ed. Centers)		(Bac.--Other)		Other Inst.	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private		
KPU Centers	14	5	4	1	-	-	-	-	-	-	-	-	-	24
Other Outstanding Prod.	7	2	17	6	2	1	1	-	-	-	-	-	-	36
KPU Actives	2	2	22	3	7	-	1	1	-	-	1	-	-	39
Unusual Producers	-	-	-	5	12	-	3	3	-	-	2	1	-	26
Middle Range Producers	-	2	36	8	53	7	12	5	1	1	6	2	3	136
Occasional Producers	-	-	4	4	25	10	18	10	5	6	5	5	2	94
Minimal Producers	-	-	2	-	5	6	3	8	1	2	1	7	-	35
Idiographic Producers	-	-	2	3	44	18	20	32	9	19	12	37	8	204
Non-Producers	-	-	2	-	35	33	33	110	16	76	27	313	128	773
Total No. of Institutions	23	11	89	30	183	75	91	169	32	104	54	365	141	1,367

1. "KPU Centers," as one would have predicted, are all doctoral level institutions.

2. Only 19 of the earlier defined 34 research center institutions qualified for inclusion as KPU centers under the productivity study rules.

3. Six of the previously cited research center group dropped two or more categories when classified on the basis of these rules.

4. Only two (1.3 per cent) doctoral level institutions are non-producers, but 15 (9.8 per cent) are low producers and another 46 are middle range producers (30.1 per cent). The level of faculty productivity in KPU in these SCDEs raises serious question about whether their doctoral students receive any significant inquiry training. Surely they are missing role models and acculturation to KPU productivity. Anyone thinking about future KPU productivity in education must have a special concern about the four in 10 doctoral level institutions in education in which KPU productivity by faculty is the exception rather than the rule.

5. The 36 "Other Outstanding Producers" represent an extant resource that could be tapped if one were interested in increasing the number of KPU center institutions. But they are not the only resource to which one could turn. Twenty-one of the "C-Publics" (11.5 per cent) were classified as high or unusual producers and another 53 (29.0 per cent) fell in the middle range category. The "D" publics and privates also had nine institutions in the high or unusual group and 17 among the middle range producers. These masters level sites with their relatively large faculties represent a pool of KPU talent that could be enhanced by external support programs.

6. Although exceptional institutions in KPU activity are rare outside the doctoral and masters level categories they do exist. Four other

institutions were classified as KPU actives or unusual producers and 13 were classified as middle range producers. These institutions argue at least for individual support for competent KPU professors in whatever institutional settings they may be working.

Sources of Highest Degrees of SCDE Faculty

The sources of SCDE faculty highest degrees were determined from questionnaire responses from 1,387 SCDE faculty members in 131 of the sample institutions of the RITE study. They represent 4.1 per cent of the estimated total number of SCDE faculty in the United States.[1] Each of these individuals was asked to respond to one item on which this analysis is based, i.e.: Institution awarding highest degree: ________.

Degree Source by Institutional Type

Tables V-15 and V-16 display the responses to this query by actual number of faculty and percentage respectively. Doctoral level institutions, of course, dominate this productivity measure quantitatively since the overwhelming percentage of SCDE faculty hold the doctorate. "A and B Public" SCDEs also predominate in the placement of the total number of doctoral graduates in SCDEs for the simple reason that they produce the bulk of the doctorates in education in the United States. There are, however, some observations that are not so obvious or predictable, to wit:

1. SCDEs typically recruit from their own institutional type when potential faculty are available from this source. Public research center institutions are staffed chiefly (52.6 per cent) with faculty whose degrees were obtained from other "A-Public" SCDEs. Even more convincing is the fact that the "A-Privates" reported the majority (50.7 per cent) of their

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[1] Details on the faculty questionnaire sample are reported in Chapter IV, pp. IV-4--IV - 8. It is important for the reader to note, as explained in Chapter IV, that the sample was intentionally biased, i.e., it was chosen to over-represent institutions likely to be active in the area of knowledge production and utilization.

TABLE V-15

NUMBER OF SCDE FACULTY RECEIVING HIGHEST DEGREE FROM EACH INSTITUTIONAL TYPE

Degree Source		Number of Faculty Presently Employed in Type[1]												Total
		A		B		C		D		E		F		
		Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	
A	Public	80	21	129	25	128	19	29	6	4	10	4	4	459
	Private	32	39	28	19	55	14	18	4	2	5	4	2	222
B	Public	23	6	161	12	121	14	38	5	19	15	13	9	436
	Private	3	1	13	12	24	9	3	1	3	7	0	4	80
C	Public	1	0	1	1	27	1	9	0	0	2	1	0	43
	Private	1	0	0	0	1	8	0	0	0	0	0	0	10
D	Public	1	1	0	0	0	0	3	0	0	0	0	0	5
	Private	2	2	0	0	2	1	0	3	0	0	0	0	10
E	Public	0	0	1	0	1	0	0	0	0	0	0	0	2
	Private	0	0	0	0	0	0	0	0	0	0	0	0	0
F	Public	0	0	9	0	1	3	0	0	0	0	5	0	18
	Private	0	0	1	0	0	0	0	0	0	0	0	0	1
All Xs[2]		1	1	3	0	1	0	0	0	0	0	0	0	6
Unknown		8	6	26	3	28	6	7	4	2	2	2	1	95
Total		152	77	372	72	389	75	107	23	30	41	29	20	1,387

[1] No data are available for placement in "Type X" institutions since these institutions were excluded from the RITE sample.

[2] Entries shown were all from "Type 2X" institutions.

TABLE V-16

PERCENTAGE OF SCDE FACULTY RECEIVING HIGHEST DEGREE FROM EACH INSTITUTIONAL TYPE

Degree Source		Percentage of Faculty Presently Employed in Type[1]												Total
		A		B		C		D		E		F		
		Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	
A	Public	52.63	27.27	34.68	34.72	32.90	25.33	27.10	26.09	13.33	24.39	13.79	20.00	33.09
	Private	21.05	50.65	7.53	26.39	14.14	18.67	16.82	17.39	6.67	12.20	13.79	10.00	16.01
B	Public	15.13	7.79	43.28	16.67	31.11	18.67	35.51	21.74	63.33	36.59	44.83	45.00	31.43
	Private	1.97	1.30	3.49	16.67	6.17	12.00	2.80	4.35	10.00	17.07	0.00	20.00	5.77
C	Public	0.66	0.00	0.27	1.39	6.94	1.33	8.41	0.00	0.00	4.88	3.45	0.00	3.10
	Private	0.66	0.00	0.00	0.00	0.26	10.67	0.00	0.00	0.00	0.00	0.00	0.00	0.72
D	Public	0.66	1.30	0.00	0.00	0.00	0.00	2.80	0.00	0.00	0.00	0.00	0.00	0.36
	Private	1.32	2.60	0.00	0.00	0.51	1.33	0.00	13.04	0.00	0.00	0.00	0.00	0.72
E	Public	0.00	0.00	0.27	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
	Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
F	Public	0.00	0.00	2.42	0.00	0.26	4.00	0.00	0.00	0.00	0.00	17.24	0.00	1.30
	Private	0.00	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
All Xs[2]		0.66	1.30	0.81	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43
Unknown		5.26	7.79	6.99	4.17	7.20	8.00	6.54	17.39	6.67	4.88	6.90	5.00	6.85
Total		100.00	100.00	100.01	100.01	100.01	100.00	99.98	100.00	100.00	100.01	100.00	100.00	99.99

[1] No data are available for placement in "Type X" institutions since these institutions were excluded from the RITE sample.

[2] Entries shown were all from "Type 2X" institutions.

highest degrees were obtained at other "A-Private" institutions although the available recruitment pool of doctoral students from "A-Private" institutions is the smallest of all the doctoral types.

2. When either the public or private research center institutions venture outside their own group they stay chiefly with other research center institutions. In the "A-Publics," 74 per cent of the faculty reported highest degrees from research center institutions; the "A-Privates" reported 78 per cent. The influence of the research center institutions on KPU is reflected not only in their productivity in KPU but in their effect on the future staffing of research center SCDEs.

3. The "B-Publics" turn to the "A-Publics" for faculty when they move outside their own recruitment group. In absolute terms, 78 per cent of the reporting faculty from the "B-Publics" noted highest degrees from public doctoral SCDEs.

4. The "B-Privates" are apparently upgrading their faculty by recruiting from research center institutions (61 per cent). Their favorite target by far is the "A-Private" group, if the availability of doctoral graduates from the "A-Public" and "A-Private" pools is taken into account.

5. Based on the demographic data on students completing doctoral programs by institutional type reported in Chapter III, if the students were distributed randomly across institutional types one would have predicted about an equal number of graduates from "A-Public" and "B-Public" institutions in each category (circa 80 per cent of the total) with the remaining 20 per cent split with 14 per cent from the "B-Privates" and six per cent from the "A-Privates." That is obviously not the case:

a) The "B-Privates" are under-represented in almost all categories and overall.

b) The "B-Publics" are used less than would have been predicted by other doctoral level institutions. They are strongly represented in recruitment by baccalaureate level SCDEs.

c) The "A-Privates" are consistently over-represented and are especially attractive to "A-Publics" and "B-Privates."

d) The "A-Publics" are under-represented although they are numerically heavy producers of SCDE faculty in all categories. They are least used by the baccalaureate level SCDEs.

6. Intra-group recruitment is high enough in several categories to suggest that in-breeding is a problem in many SCDEs. It is difficult to imagine that the "A-Privates" can staff 50 per cent of their positions from a tiny recruitment pool without retaining an inordinate percentage of their own graduates. Examining data below the doctoral institution group, however, is even more convincing. Eleven per cent of the faculty in the "C-Privates," 13 per cent in the "D-Privates," and 17 per cent in the "F-Publics" reported highest degrees from the same institutional type. Since these are non-doctoral institutions, it is almost certain that these are graduates retained by the institution who have not completed advanced degree work at other institutions.

7. Among all respondents, 1,197 reported terminal degrees from doctoral level institutions. Using the percentages noted in item five above, one would have predicted circa 480 from "A-Public" and "B-Public" institutions, 170 from "B-Privates" and only 70-75 from "A-Privates." That was obviously not the case. The "A and B-Publics" were represented about as expected but the "A-Privates" were over-represented heavily (by almost three times the predicted amount) and the "B-Privates" were sharply under-represented (by half). It seems reasonable to infer from these data that

a high percentage of doctoral graduates from "A-Private" institutions find positions in SCDEs as professors and a small percentage of "B-Privates" are employed as faculty in SCDEs.

Variance within Doctoral Institutional Types

Some interesting patterns occur within the four doctoral level types ("A" and "B" publics and privates) which, while not evident from Tables V-15 and V-16, nevertheless warrant comment:

Public Research Center Institutions. First, the 23 institutions in this category are not equally productive of faculty members for SCDEs. The best producer in this category placed 48 faculty members while the poorest placed but five (in all categories of SCDEs). Second, the placement pattern is markedly uneven. There are, for example, seven "A-Publics" that might be termed high producers in the sense that each has placed 25 or more faculty. One of these schools, however, placed 24 of 26 graduates in doctoral level institutions, while another of these high producers, at the other extreme, placed but 10 of 32 graduates in doctoral level institutions. Third, it appears that "A-Public" institutions are remarkably selective in recruiting faculty from other "A-Publics." Of the 80 faculty respondents currently employed at "A-Public" institutions, over half (41 of 80) received their highest degrees from one of four "A-Public" institutions. The remaining portion received their degrees from one of 13 other "A-Publics," while seven "A-Publics" placed no faculty at all in "A-Public" settings.

Whether justified or not, there appears to be a strong perception on the part of employing agents that KPU training and acculturation is more effective in some research center SCDEs than in others.

Private Research Center Institutions. A very similar situation prevails with respect to the "A-Private" institutions. First, on total variability, the number of sample faculty reporting degrees from these institutions ranged from a low of nine for one "A-Private" to a high of 41 for another. Second, on placement pattern, only three of 10 graduates from one institution were placed in other doctoral level institutions, while 14 of 16 were so placed in a second case. Finally, in terms of clustering, well over 50 per cent of the faculty from "A-Private" institutions reported receiving degrees from but three of the 11 "A-Privates." Again selection is apparent.

Other Public Doctoral Institutions. There is a wide range in the number of faculty reporting "B-Public" SCDEs as the source of their highest degree (from one to 28). Only one of these institutions was cited with unusual frequency (five) by faculty from research center institutions as the source of their degree. Marked differences in the place of employment of graduates were also found. One of the institutions which was cited frequently (18 times) nevertheless had no credits noted from doctoral level institutions. In contrast, another of the high producers of SCDE faculty had 17 of 24 reported from doctoral level SCDEs.

Other Private Doctoral Institutions. Within this group, the number of citations of institutions as sources of highest degrees ranged from zero to 12. The pattern within the group was much less variable than for the other three doctoral groups. In only one instance did as many as two faculty from research center institutions report one of these "B-Private" SCDEs as the degree source. The highest producer of faculty at doctoral institutions could claim but six, and only three institutions produced more than two. Most of the graduates from these institutions included in the sample were employed at masters level institutions.

Summary

SCDEs affect the current and future state of KPU in education not only by what they produce in the form of identifiable KPU products but by the students they train in advanced degree programs who become the next generation of KPU producers. The mere existence of a doctoral program in education at an SCDE tells little about the impact of students from that program on KPU in education. Research center institutions play a unique role in staffing KPU positions for the future. But even within this select sub-set of institutions there are a few that have great influence upon the future staffing of research center SCDEs; influence that is not reflected directly in their current level of productivity in KPU.

SCDE faculty in research center institutions tend strongly to have been trained in research center institutions. "B-Public" institutions supply SCDE faculty chiefly to other "B-Public" sites and masters and baccalaureate level SCDEs. "B-Private" institutions are not noted with frequency as highest degree institutions by SCDE faculty in general. These doctoral graduates are finding employment opportunities in education outside SCDEs with greater frequency than their counterparts in other doctoral institution types.

SCDEs in Contrast to Other Producers of Educational KPU

Each of the productivity studies, with the exception of the degree source study, was designed to provide data not only about the yield from SCDEs but also about a variety of other educational KPU producers within and outside the university setting. In reporting the comparative data on SCDE/non-SCDE productivity, the following classification of non-SCDE agencies will be used:

1. Other College and University Agencies
    - a. Departments of economics, schools of business.
    - b. Health Sciences: schools of medicine, nursing, dentistry, allied health, etc.

c. Human development or psychology departments.
d. Departments of political science, public affairs, urban affairs, etc.
e. Departments of sociology, social behavior, etc.
f. Non-academic units: president's office, dean of students, provost, etc.
g. "University undesignated," i.e., units not specifically identified, as in a journal article authored by a professor identified only as affiliated with University Y.
h. "All other university units," i.e., units that were identified but for which the frequency of citation was so low as not to justify separate reporting.

2. Agencies Outside Colleges and Universities

   a. Elementary/secondary schools, i.e., all personnel affiliated with units, public or private, including teachers, superintendents, board members, etc.
   b. State departments of education.
   c. Community or junior colleges.
   d. KPU organizations or projects, including all profit and nonprofit KPU agencies, Federally supported regional educational laboratories, and any project not specifically housed in a college or university.
   e. National educational professional associations, including learned societies, teachers unions, etc. related to education (but not, for example, to psychology).
   f. Business and industry.
   g. U. S. Government, including educational agencies such as NIE or U.S.O.E. as well as others such as NIH; congressmen; jurists; etc.
   h. All other non-university, all agencies not specified above.

3. All Foreign Sources (including colleges and universities)

Education Journals Study

Summary data on productivity in education journals is displayed in Table V-17. The following points seem worth emphasizing:

1. SCDEs contribute 56.5 per cent of all journal credits, and university sources, including SCDEs, account for 64.2 per cent. The figure for SCDEs is more impressive with respect to research journals, in which SCDEs account for 64.7 per cent.

2. The next largest contributor is the elementary/secondary school category which, surprisingly since KPU is not typically an LEA mission, accounts for 18.8 per cent of all journal credits. LEAs are especially

TABLE V-17

PRODUCTIVITY CREDITS IN EDUCATION JOURNALS FOR SCDEs AND OTHER ORGANIZATIONS AND AGENCIES

Source	Practitioner Journals		Research Journals		Total	
	Number Credits	Per Cent	Number Credits	Per Cent	Number Credits	Per Cent
U. S. University Sources						
SCDEs	2883.80	52.89	1549.24	64.67	4433.04	56.49
Business/Economics	9.00	0.17	6.50	0.27	15.50	0.20
Health Sciences	24.83	0.46	47.50	1.98	72.33	0.92
Human Devel/Psychology	25.16	0.46	129.82	5.42	154.98	1.97
Pol Sci/Pub Affairs	6.00	0.11	1.00	0.04	7.00	0.09
Sociol/Social Behavior	8.16	0.15	8.24	0.34	16.40	0.21
Non-Academic Units	20.33	0.37	1.00	0.04	21.33	0.27
University Undesignated	76.69	1.41	35.24	1.47	111.93	1.43
All Other University	156.99	2.88	48.40	2.02	205.39	2.62
UNIVERSITY SUBTOTAL	3210.96	58.89	1826.94	76.27	5037.90	64.19
U. S. Non-University Sources						
Elem/Sec Schools	1414.17	25.94	62.44	2.61	1476.61	18.81
State Depts of Educ	96.32	1.77	8.16	0.34	104.48	1.33
Community/Jr Colleges	66.66	1.22	12.49	0.52	79.15	1.01
KPU Organ/Projects	82.32	1.51	118.58	4.95	200.90	2.56
Natl Educ Prof Assns	58.33	1.07	6.00	0.25	64.33	0.82
Business/Industry	37.50	0.69	10.33	0.43	47.83	0.61
U. S. Government	70.66	1.30	22.83	0.95	93.49	1.19
All Other Non-University	257.16	4.72	104.02	4.34	361.18	4.60
NON-UNIVERSITY SUBTOTAL	2083.12	38.20	344.85	14.40	2427.97	30.94
All Foreign Sources						
All Foreign Sources	158.50	2.91	223.71	9.34	382.21	4.87
Totals						
Totals	5452.58	100.00	2395.50	99.98	7848.08	100.00

strong contributors in practitioner-oriented journals in which they account for more than one-fourth of the total credits!

3. Other behavioral science units in university settings are infrequent contributors in the 26 journals reviewed in this study. The largest proportion is two per cent generated by human development/psychology units.

4. KPU organizations/projects contribute a surprisingly small amount --2.6 per cent in total (but five per cent of the research journal credits).

5. The data from this study agree reasonably well with those from another study[1] of five major educational journals, Phi Delta Kappan, Today's Education, Educational Leadership, NASSP Bulletin, and Harvard Educational Review, the first four of which were included here, all on the practitioner-oriented journal list. That study showed 51.9 per cent of all articles accounted for by University personnel and 24.2 per cent by elementary and secondary school personnel. The current data for practitioner-oriented journals yield 58.9 per cent for university personnel (52.9 per cent from SCDEs) and 25.9 per cent from LEA personnel. The data appear to be consistent and reinforcing.

RIE Study

The relevant data are shown in Table V-18. Since KP, KU, and KPU distinctions were made only for those documents believed to originate in SCDEs, only total document credits are shown. Some relevant observations:

1. In marked contrast to the journal findings, SCDEs do not make much use of ERIC/RIE; but 6.6 per cent of all RIE entries are contributed by SCDEs.

2. The major contributors to RIE are non-university units, perhaps

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[1] Ronald E. Comfort, Larry S. Bowen, and Bruce M. Gansneder, "Who's Writing About What in Education's Major Journals?" (Educational Leadership, Vol. 31, No. 2, May, 1974) pp. 663-667.

TABLE V-18

PRODUCTIVITY CREDITS IN RIE FOR SCDEs AND OTHER ORGANIZATIONS AND AGENCIES[1]

Source	Number of Credits	Per Cent in Category
U. S. University Sources		
SCDEs	1806.14	6.64
Business/Economics	115.00	0.42
Health Sciences	87.50	0.32
Human Devel/Psychology	230.00	0.85
Pol Sci/Pub Affairs	45.00	0.17
Sociol/Social Behavior	25.00	0.09
Non-Academic Units	110.00	0.40
University Undesignated	620.25	2.28
All Other University	3702.25	13.60
UNIVERSITY SUBTOTAL	6741.14	24.77
U. S. Non-University Sources		
Elem/Sec Schools	2093.95	7.69
State Depts of Education	1257.85	4.62
Community/Jr Colleges	400.40	1.47
KPU Organ/Projects	1907.45	7.01
Natl Educ Prof Assns	710.00	2.61
Business/Industry	219.15	0.81
U. S. Government	1655.80	6.08
All Other Non-University	10292.75	37.82
NON-UNIVERSITY SUBTOTAL	18537.35	68.11
All Foreign Sources		
All Foreign Sources	1939.05	7.12
Totals		
Totals	27217.54	100.00

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[1] Only total data are shown, since non-KPU source documents were not classified as KP or KU. Non-SCDE source data are estimates based on a 20 per cent random sample; SCDE data are for the population of SCDEs.

because universities turn more naturally to journals as outlets for their products. The largest domestic users are, in order, elementary/secondary schools (7.7 per cent), KPU organizations/projects (7.0 per cent), and the U. S. Government (which at 6.1 per cent is but one-half a percentage point below SCDEs in contributions). Foreign sources contribute 7.12 per cent.

Books in Education Study

The summary data from this study are displayed in Table V-19 but are not especially useful in contrasting SCDE/non-SCDE productivity since it was impossible to track most authors to a departmental affiliation within a college or university. Consequently, the bulk of the contributions to books are classified as "University Undesignated," i.e., 57.9 per cent. If the assumption is made that this category would distribute itself across university units in the same proportion as the known credits within universities an estimate can be made that circa 40 per cent of the total credits are actually assignable to SCDEs.[1] The investigators have no reason to believe this is not a reasonable assumption and will proceed on that basis. A few observations:

1. Universities as a whole dominate the production of books in education (82.5 per cent).

2. Aside from university sources, the only significant contributors are LEAs which accumulated 16 per cent of the credits for textbooks.

3. Within the university both health sciences and psychology departments have significant totals among general books in education if the

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[1] Obtained by subtracting from total university credits, 503.37, the undesignated credits, 353.24, and expressing the SCDE credits as a proportion of the difference, i.e., 73.47/(503.37 - 353.24) = .4894. Applying this proportion to the undesignated credits (353.24 X .4894) suggests that 172.87 of these properly may be ascribed to SCDEs. If we add this number to the 73.47 known to originate with SCDEs, and divide the sum by the total number of credits (609.84) we derive 40.39 as the probable percentage actually due to SCDE contributions.

TABLE V-19

PRODUCTIVITY CREDITS FOR EDUCATION BOOKS IN SCDEs AND OTHER ORGANIZATIONS AND AGENCIES

Source	SCDE Books		Textbooks		Other Books		Total	
	No. of Credits	Per Cent	No. of Credits	Per Cent	No. of Credits	Per Cent	No. of Credits	Per Cent
U. S. University Sources								
SCDEs	43.63	15.37	6.68	6.91	23.16	10.10	73.47	12.05[1]
Business/Economics	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Health Sciences	5.00	1.76	2.00	2.07	11.99	5.23	18.99	3.11
Human Devel/Psychology	3.66	1.29	1.00	1.03	10.99	4.79	15.65	2.57
Pol Sci/Pub Affairs	0.00	0.00	0.00	0.00	1.00	0.44	1.00	0.16
Sociol/Social Behavior	1.00	0.35	0.00	0.00	5.00	2.18	6.00	0.98
Non-Academic Units	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
University Undesignated	191.68	67.52	46.63	48.26	114.93	50.12	353.24	57.92
All Other University	2.50	0.88	13.36	13.83	19.16	8.36	35.02	5.74
UNIVERSITY SUBTOTAL	247.47	87.17	69.67	72.10	186.23	81.22	503.37	82.53
U. S. Non-University Sources								
Elem/Sec Schools	14.63	5.15	15.39	15.93	6.95	3.03	36.97	6.06
State Depts of Educ	1.75	0.62	2.50	2.59	0.00	0.00	4.25	0.70
Community/Jr Colleges	1.00	0.35	0.00	0.00	1.27	0.55	2.27	0.37
KPU Organ/Projects	4.25	1.50	0.83	0.86	5.61	2.45	10.69	1.75
Natl Educ Prof Assns	3.47	1.22	0.00	0.00	3.22	1.40	6.69	1.10
Business/Industry	3.33	1.17	3.24	3.35	4.33	1.89	10.90	1.79
U. S. Government	1.00	0.35	0.00	0.00	3.11	1.36	4.11	0.67
All Other Non-University	5.00	1.76	5.00	5.17	16.49	7.19	26.49	4.34
NON-UNIVERSITY SUBTOTAL	34.43	12.13	26.96	27.90	40.98	17.87	102.37	16.78
All Foreign Sources								
All Foreign Sources	2.00	0.70	0.00	0.00	2.10	0.92	4.10	0.67
Totals								
Totals	283.90	100.00	96.63	100.00	229.31	100.01	609.84	99.98

[1] The estimated true value for SCDEs is 40.39 per cent if the undesignated category is distributed proportionately among the known sources (see p. V-53).

redistribution of the undesignated category is applied to their contributions.

Conventions Study

As was the case with books in education, a large number of convention credits could not be assigned to specific departments within colleges and universities. The technique employed in the earlier section will be used in relation to convention credits, however, to generate an estimated percentage for SCDEs. The difficulty encountered in identifying departments in the convention study was more aggravating than the books study since one of the six conventions surveyed (Council on Exceptional Children) did list departmental affiliation. Because of the specialized substantive nature of that convention the following data could not be used in the earlier analyses in this chapter, but the data for general sources are valid and can be reported in this context. The summary of the study is displayed in Table V-20. Some observations:

1. SCDEs are estimated to have circa 42 per cent of the convention credits, roughly the same as the proportion of book credits.

2. A surprisingly large number of credits are generated by non-university sources, chief of which are LEAs with 18.5 per cent of the total.

3. KPU organization and project personnel also contribute a significant amount, 6.4 per cent.

4. University contributions tend to emphasize KP over KU (3200 + credits vs. 1200 + credits) while non-university contributions reverse this tendency (2150 + KU vs. 1270 + KP).

Foundation Grants Study

The relevant data are shown in Table V-21. The following observations seem appropriate:

1. SCDEs account for 23.1 per cent of the grants and 25.8 per cent of the dollars provided by foundations for educational KPU. When the figures

TABLE V-20

PRODUCTIVITY CREDITS FOR CONVENTION PRESENTATIONS IN SCDEs AND OTHER ORGANIZATIONS AND AGENCIES

Source	KP		KU		Total	
	Number Credits	Per Cent	Number Credits	Per Cent	Number[1] Credits	Per Cent
U. S. University Sources						
SCDEs	247.93	5.34	596.42	17.42	931.08	11.01[2]
Business/Economics	0.00	0.00	3.00	0.09	4.00	0.05
Health Sciences	49.50	1.07	23.33	0.68	81.83	0.97
Human Devel/Psychology	5.00	0.11	4.00	0.12	9.00	0.11
Pol Sci/Pub Affairs	0.00	0.00	3.00	0.09	3.00	0.04
Sociol/Social Behavior	3.00	0.06	0.00	0.00	3.00	0.04
Non-Academic Units	1.00	0.02	8.00	0.23	9.00	0.11
University Undesignated	2826.90	60.93	513.15	14.99	3431.55	40.57
All Other University	86.03	1.85	69.33	2.03	183.02	2.16
UNIVERSITY SUBTOTAL	3219.36	69.38	1220.23	35.65	4655.48	55.03
U. S. Non-University Sources						
Elem/Sec Schools	292.35	6.30	1193.12	34.85	1568.47	18.54
State Depts of Educ	97.32	2.10	117.50	3.43	229.82	2.72
Community/Jr Colleges	34.50	0.74	19.00	0.56	53.50	0.63
KPU Organ/Projects	404.73	8.72	119.50	3.49	537.23	6.35
Natl Educ Prof Assns	26.33	0.57	118.00	3.45	150.33	1.78
Business/Industry	104.58	2.25	51.00	1.49	158.58	1.87
U. S. Government	151.16	3.26	88.50	2.59	252.66	2.99
All Other Non-University	162.81	3.51	449.42	13.13	655.43	7.75
NON-UNIVERSITY SUBTOTAL	1273.78	27.45	2156.04	62.90	3606.02	42.63
All Foreign Sources						
All Foreign Sources	146.75	3.16	47.00	1.37	197.75	2.34
Totals						
Totals	4639.89	99.99	3423.27	100.00	8459.25	100.00

[1] Total includes not only KP and KU but a small number of credits classified as both KP and KU.

[2] The estimated true value for SCDEs is 41.86 per cent if the undesignated category is distributed proportionately among the known sources (see p. V-53).

TABLE V-21

FOUNDATION GRANTS TO SCDEs AND OTHER ORGANIZATIONS AND AGENCIES FOR KPU IN EDUCATION

Recipient	Number of Grants	Per Cent of Grants	Dollar Amount of Grants (000)	Per Cent of Dollars
U. S. University Sources				
SCDEs	190	23.09[1]	19,544	25.77[1]
Business/Economics	3	0.36	80	0.11
Health Sciences	0	0.00	0	0.00
Human Devel/Psychology	3	0.36	326	0.43
Pol Sci/Pub Affairs	5	0.61	71	0.09
Sociol/Social Behavior	4	0.49	141	0.19
Non-Academic Units	4	0.49	229	0.30
University Undesignated	143	17.38	18,164	23.95
All Other University	37	4.50	4,212	5.55
UNIVERSITY SUBTOTAL	389	47.27	42,767	56.39
U. S. Non-University Sources				
Elem/Sec Schools	68	8.26	4,859	6.41
State Depts of Education	6	0.73	246	0.32
Community/Jr Colleges	5	0.61	290	0.38
KPU Organ/Projects	110	13.37	12,498	16.48
Natl Educ Prof Assns	11	1.34	965	1.27
Business/Industry	2	0.24	17	0.02
U. S. Government	3	0.36	257	0.34
All Other Non-University	222	26.97	13,579	17.90
NON-UNIVERSITY SUBTOTAL	427	51.88	32,711	43.13
All Foreign Sources				
All Foreign Sources	7	0.85	370	0.49
Totals				
Totals	823	100.00	75,848	100.00

[1] The estimated true value for SCDEs is 36.51 per cent of the grants and 44.79 per cent of the dollars if the undesignated category is distributed proportionately among the known sources (see p. V-53).

are corrected for the entries in the "University Undesignated" categories as in the preceding sections, it is likely that SCDEs actually receive 36.5 per cent of the grants and 44.8 per cent of the dollars.

2. The majority of grants (51.9 per cent) and a very large proportion of the dollars (43.1 per cent) are awarded to domestic non-university sources. Of these, 8.3 per cent of the grants and 6.4 per cent of the dollars go to LEAs; 13.4 per cent of the grants and 16.5 per cent of the dollars to KPU organizations and projects.

Governmental Grants and Contracts Study

These data collected through the Smithsonian Science Information Exchange included only college and university settings. Consequently, the data in Table V-22 contrast SCDEs only with other units within institutions of higher education. The following observations seem appropriate:

1. Far less than a majority of grants and contracts to colleges and universities for KPU in education are assigned to SCDEs. Even if the undesignated credits were reassigned, the percentage would amount to only 40.0 per cent of the grants and 42.9 per cent of the dollars.

2. The only other single unit receiving a significant number of grants and contracts for educational KPU is the departmental cluster human development/psychology. The remaining funds are scattered widely across disparate units.

Summary

To afford an overall perspective, key data from the six productivity studies are displayed in Table V-23, with corrected figures for "University Undesignated" inserted for SCDEs. Several items of interest emerge:

1. SCDEs typically receive some 40 + per cent of productivity indicators (credits, grants, dollars) relating to educational KPU. They do rather better than this expectation with respect to journals (56.6 per cent) but

TABLE V-22

DISTRIBUTION OF GOVERNMENTAL GRANTS AND CONTRACTS AMONG SCDEs AND OTHER HIGHER EDUCATION UNITS

Recipient	Number of Grants	Per Cent of Grants[1]	Dollar Amount of Grants (000)	Per Cent of Dollars[1]
SCDEs	245	32.84	22,790	36.56
Business/Economics	21	2.82	1,101	1.77
Health Sciences	13	1.74	904	1.45
Human Development/Psychology	70	9.38	4,463	7.16
Pol Sci/Pub Affairs	15	2.01	615	0.99
Sociology/Social Behavior	25	3.35	1,587	2.55
Non-Academic Units	6	0.80	700	1.12
University Undesignated	135	18.10	9,139	14.66
All Other University	216	28.95	21,031	33.74
Total	746	99.99	62,330	100.00

[1] The estimated true value for SCDEs is 40.10 per cent of the grants and 42.85 per cent of the dollars if the undesignated category is distributed proportionately among the known sources (see p. V-53).

TABLE V-23

OVERVIEW OF SCDEs AMONG KPU PRODUCERS[1]

	Per Cent Credits				Per Cent Dollars	
	Journ.	RIE	Books	Conv.	Found.	SIE
SCDEs	56.56	6.64	40.39	41.86	44.79	42.85
Other University	7.71	18.13	42.14	13.17	11.60	57.15
Domestic Non-University	30.96	68.11	16.78	42.63	43.13	NA[2]
Foreign	4.77	7.12	0.67	2.34	0.49	NA[2]
Total	100.00	100.00	99.98	100.00	100.01	NA[2]

[1] Figures entered for SCDEs are corrected for "University Undesignated" entries (see p. V-53).

[2] SIE data were computed for college/university sources only.

considerably less than this expectation in RIE (6.6 per cent).

2. This finding seems to reflect both well and ill on the SCDEs as a group. Obviously SCDEs are respectable competitors, but considering that what is at stake here is educational KPU, and considering that almost no other unit has a primary mission in the educational KPU arena, the less-than-half average seems to be remarkably low.

3. Generally university sources dominate except in the case of RIE, in which domestic non-university sources account for 68.1 per cent of the total and foreign sources for 7.1 per cent (in contrast to the total SCDE contribution of 6.6 per cent). Clearly KPU is still primarily a university function; equally clearly RIE is the non-university communication channel.

CHAPTER VI

CONTEMPORARY SCENARIOS OF KNOWLEDGE PRODUCTION AND UTILIZATION IN SCHOOLS, COLLEGES, AND DEPARTMENTS OF EDUCATION

This chapter provides a series of scenarios which depict the current status of schools, colleges, and departments of education (SCDEs) in respect to knowledge production and utilization (KPU) activities.[1] It synthesizes data already presented in Chapters III, IV, and V, which reported, respectively, the results of an institutional questionnaire completed in 135 SCDEs chosen so as to be representative of the national population of 1,367 such units; the responses to a faculty questionnaire completed by 1,387 faculty members in 131 of these 135 institutions; and the results of a series of secondary source studies intended to provide an objective indication of institutional KPU productivity. Both institutional and faculty questionnaires were organized around four major headings: (1) demographic data, (2) data relating to the KPU missions of the institution, (3) data relating to organizational arrangements made by the institution in support of its KPU missions and (4) data relating to self-reports on KPU productivity. The external productivity studies included an assessment of: (1) contributions to educational journals (researcher and practitioner-oriented); (2) contributions to the Research In Education (RIE) portion of the national ERIC system; (3) contributions to educational books reviewed in the same journals used in the journal study; (4) contributions to national convention programs of professional associations in education; (5) contracts and grants received from private foundation and governmental funding sources; and (6) the number of graduates who became faculty members in other SCDEs. Only journal and RIE credits, numbers of foundation or government grants and contracts, and numbers of graduates employed as faculty in other SCDEs are considered for purposes of this chapter.[1]

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[1] There is no generally satisfactory solution to the problem of defining KPU. Using a definition by exclusion, respondents to this study were asked to concentrate on the functions and activities of faculty when they were not engaged in the regularized teaching program of the SCDE. KPU activities were described in general as including research and scholarly productivity; development, dissemination, and demonstration; *ad hoc* services to schools; and effecting change in schools and other educational

Orientation to the Data

Twelve institutional types were formed for use in reporting the data of the study and are portrayed in Table VI-1. Three variables were employed in constructing the types, i.e., degree level offered in education (doctoral, masters, baccalaureate); institutional control (public, private); and likely involvement in educational KPU (more likely, less likely). The identification and application of the first two variables is obvious. "A" and "B" institutions are doctoral level SCDEs; "C" and "D" are masters level institutions; "E" and "F" have baccalaureate programs in education. Each is subsequently divided into public and private groups. The final distinction is less obvious. At the doctoral level, "A" and "B" type institutions were separated on the basis of previous empirical studies of involvement in R and D activities.[2] At the masters and baccalaureate levels, the distinction was made on the basis of several characteristics of the institutions, i.e., involvement with the national teacher education

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agencies. Respondents to the institutional questionnaire utilized a more detailed, 13-point KPU activity checklist as an operational definition of KPU.

[1] The reasons for delimiting the use of the productivity studies to these five is explained in detail in Chapter V, pp. 2-9.

[2] A full discussion of the RITE category system is included in Appendix C.

TABLE VI-1

INSTITUTIONAL TYPES IN RELATION TO RITE CATEGORIES: NUMBER OF INSTITUTIONS BY TYPE IN POPULATION

Institutional Types	RITE Categories Included in Type[1]	Number of Institutions in Population[2]
A. Res. Center Inst.		
Public	1A1	23
Private	2A1	11
B. Other Inst. for Adv. Graduate Study		
Public	1A2, 1B, 1C, 1X	89
Private	2A2, 2B, 2C, 2X	40
C. Pre/In-Service Tchr. Education Centers		
Public	3A1, 3A2, 3A3	183
Private	5A1, 5A2, 5A3	75
D. Other Pre/In-Service Tchr. Educ. Inst.		
Public	3B, 3C, 3X, 4A1-4X	101
Private	5B, 5C, 5X	203
E. Pre-Service Teacher Education Centers		
Public	6A1, 6A2, 6A3	32
Private	8A1, 8A2, 8A3	104
F. Other Pre-Service Tchr. Educ. Inst.		
Public	6B, 6C, 6X, 7A1-7X	60
Private	8B, 8C, 8X	446
	Total	1,367

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[1] These are the hypothetical categories. In practice some were empty sets.

[2] School year 1974-75 (approved program lists of state directors of teacher certification--in the case of Nevada which does not maintain a program approval system, the teacher education institutions listed by the SEA were included).

community (accreditation by the National Council for Accreditation of Teacher Education and membership in the American Association of Colleges for Teacher Education), size of SCDE faculty, size of student enrollment in education, percentage of all students at the institution who are enrolled in degree programs in education, and certain specialized information available on the SCDEs, e.g., special purpose orientation. These data were employed to distinguish between SCDEs that appeared to have a strong programmatic commitment to teacher education and those that did not. The assumption was made that this institutional commitment to teacher education as a field of study would likely be reflected in institutional involvement in KPU. Thus, for example, the "C" type public masters institutions were (1) more homogeneous as an SCDE type and (2) predicted to be more involved in KPU than the "D" type public masters institutions.

The 12 types were formed by grouping together 46 institutional categories that had been employed earlier in the study for sampling purposes and which constitute the RITE category system, a categorization which was designed to maximize institutional homogeneity within groups. The original category system was simply too cumbersome to retain for reporting purposes.

Following the completion of the external productivity studies, another classification system was devised which categorized the 1,367 institutions in terms of a current, empirical assessment of productivity. Generally speaking, the rules for this classification depended upon the level of activity of the SCDE in publications in professional journals and entries in RIE plus the number of government and foundation grants or contracts received. This system produced the following categories arranged in order of productivity (full rules for the categories may be found in Chapter V, pp. 33-37):

1. High Producers--KPU Centers (24 institutions).

2. High Producers--Other Outstanding Producers (36 institutions).
3. High Producers--KPU Actives (39 institutions).
4. Unusual Producers (i.e., unusual when contrasted to other SCDEs in the same RITE category, particularly when size is taken into account) (26 institutions).
5. Middle Range Producers (136 institutions).
6. Low Producers--Occasional (94 institutions).
7. Low Producers--Minimal (35 institutions).
8. Low Producers--Idiographic (i.e., SCDEs whose productivity was almost surely the result of a single individual) (204 institutions).
9. Non-Producers (i.e., institutions that failed to earn a credit on any index) (773 institutions).

This quality categorization is also utilized in the present chapter.

What follows is a series of scenarios typifying the current status of each type of SCDE on a number of variables, which are displayed in Tables VI-2 through VI-5 at the end of the chapter. These tables are based upon the information presented in detail in Chapters III, IV, and V, and obviously represent simplifications of the data through typification. Table VI-2 deals with selected demographic characteristics; Table VI-3 with information on mission emphases; Table VI-4 with organizational arrangements supporting KPU; and Table VI-5 with KPU productivity data.

Public Research Center Institutions ("A-Publics")

Demography

There are 23 institutions in the "A-Public" category, with a median institutional enrollment of 31,500 and an estimated median number of graduates in education at all degree levels of 1,526. The typical institution numbers a regular full-time SCDE faculty of 113, which is supported by 69 graduate assistants of all types (including teaching assistants). Some

93 per cent of the SCDE faculty hold the doctorate as the highest degree, and all but 15 per cent of the highest degrees were taken in SCDEs rather than in other academic units, e.g., departments of psychology or sociology. A larger proportion of these faculty were trained in "A-Public" institutions than in any other single institutional category. The average faculty member has accumulated 14 years of experience on a college or university staff. Most--78 per cent--hold a senior academic rank (associate professor or higher) and most--79 per cent--are on tenure. Well over 90 per cent of the institutions are both members of the American Association of Colleges for Teacher Education (AACTE) and accredited by the National Council for the Accreditation of Teacher Education (NCATE).

Mission

"A-Public" SCDEs, as do all other categories with the exception of the private research center institutions, regard instruction as the primary mission, but research is a very close second. Deans in these institutions rated "applied research" as the most significant KPU mission; faculty rated "research" highest among KPU missions both in terms of perceived importance within the SCDE and their own involvement in KPU. Faculty believe that research is also the KPU area which is most nurtured by the present SCDE environment. Both deans and faculty perceive that the institution of higher education (IHE) as a whole is supportive of KPU missions in general. The deans gave it the highest possible rating (supports, e.g., with load reductions, grants, etc.) while the faculty tended to see the IHE posture in a somewhat less positive light as being mainly stimulatory. Both SCDE administrators and faculty in these institutions take research very seriously as a central mission for the SCDE and make strenuous efforts to be responsive to this mission.

Organizational Arrangements

As might be expected for institutions that take a strong research mission posture, the public research center institutions provide a number of organizational arrangements for its support. Within the SCDE, organizational units such as bureaus, centers, or institutes are common (i.e., occur in 65 per cent or more of the institutions), as are KPU coordinators (e.g., an associate dean for research or field service), and faculty KPU committees. At the institutional (IHE) level, the typical "A-Public" institution is likely to have designated a central official as a grants or contracts officer, to have developed and be operating an information system intended to acquaint faculty with funding possibilities, deadlines, etc., and to have established a research foundation which frequently adds its own income to the funding sources available to faculty.[1] The SCDE faculty is typically the beneficiary of a variety of other institutional arrangements from within and outside the SCDE intended to support KPU activity: discretionary funds which the Dean can allocate in whatever ways make sense to him and his faculty; ad hoc load reductions that make it possible for faculty to apply for and/or take on outside grant or contract commitments; return of overhead stemming from grants or contracts which the SCDE has attracted in the past; seed grants to make it possible for faculty to explore new funding opportunities or to engage in pilot activities; special KPU leaves, sabbatical leaves, and retreats or symposia designed to train faculty members to engage in KPU or upgrade their KPU skills.

The SCDE typically backs up its high level KPU expectation with regular load assignments for faculty in KPU, i.e., a portion of the faculty member's load which is not assigned to teaching. Approximately 25 per cent of the typical faculty member's time is allocated for KPU activity, mainly research; this reduction is made possible by a normal instructional load that does not exceed nine hours per academic period. Faculty members indicate that they typically teach only two different courses (not sections) per academic period.

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[1] A major reason for the existence of research foundations at public institutions is to provide a legal repository for grant and contract funds so that they are not mingled with state monies.

Personnel policies are also aimed to support the KPU mission and expectations of these institutions. Both deans and faculty members indicate that a primary criterion for promotion and tenure is research and scholarly productivity. Deans report that a primary criterion in recruiting new faculty, other than likely teaching ability, is prior publication--evidence that the candidate can be productive in scholarship.

Finally, the research center institutions maintain a variety of KPU linkages with other agencies. Inter-departmental appointments and similar arrangements within the IHE are found in more than half these institutions, as are formal linkages with non-IHE units, for example, school study councils, leagues of schools, and other primarily KU consortia.

Productivity

With the expectation that faculty engage in research and with the resources that are provided in support of this expectation, it is not surprising that the "A-Public" institutions should also be among the leaders in productivity. They can be typified as follows:

+ The deans listed a dozen or more KPU activities in which their faculties "frequently" participate, e.g., publish in research journals, attend national meetings, hold membership in the American Educational Research Association, engage in ad hoc consulting, etc.

+ Over half the faculty reported that they were engaged in five KPU related activities.

+ The faculty are frequent contributors to education journals--in the 26 core journals included in the RITE study they contributed 58 items per institution over a three year period.

+ The faculty also contribute substantially to the RIE portion of the ERIC system, contributing 25 documents per institution over a two year period.

+ The institutions are frequent recipients of foundation and/or government grants or contracts--five such awards per institution is average.[1]

+ The level of performance for the typical institution is sufficiently high to earn a designation as a "KPU Center" as that term was defined in the present study--in fact, 14 of the 23 "A-Public" group merited this distinction.

+ The typical institution operates a graduate KPU training program (most often a research training program), and produces an impressive pool of candidates for employment in other SCDEs--indeed, these institutions have trained an estimated 33 per cent of all SCDE faculty in the United States today.

Private Research Center Institutions ("A-Privates")

Demography

There are 11 institutions in the private research center category with a median institutional enrollment of 14,165 and an estimated median number of education graduates of 535. The typical institution is staffed by 63 regular full-time SCDE faculty members supported by 78 graduate assistants--a ratio of more than one graduate assistant for every faculty member! Virtually all (96 per cent) of the SCDE faculty hold the doctorate, and a surprisingly large number--30 per cent--have earned their doctorates in non-SCDE units. More of the faculty has been trained in "A-Private" institutions than any other single category of SCDE. The typical faculty member has 13 years of experience; 70 per cent of the faculty hold senior appointments and 60 per cent are tenured. Among the institutions, 82 per cent are AACTE members and 91 per cent are accredited by NCATE at some level.

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[1] A total of foundation grants over a three year period and government grants over a 21-month period.

Mission

There can be no doubt that research is the central mission for the "A-Private" institutions, even exceeding emphasis on teaching. Indeed, the private research center institutions constitute the only category in which instruction was not viewed as most central. Deans rated basic research as of highest significance for their SCDE; faculty members believe research to be most important for the SCDE and also report highest personal involvement with research among all possible KPU mission areas. They also indicate that research is the activity best nurtured by the existing environment in their own SCDE. Both deans and faculty members noted that the institutional posture toward KPU assumed that faculty members would be KPU productive.

Organizational Arrangements

The "A-Private" institutions differ from their "A-Public" counterparts in the number and kind of organizational arrangements established in support of KPU. At the SCDE level, bureaus, centers, or institutes are frequently found, but KPU coordinators or faculty committees are not. At the IHE level the typical arrangements of a grants/contracts officer and a grants information system are present but research foundations are not, probably because private institutions, lacking a fund mingling problem, do not require them. The biggest difference comes at the level of SCDE support arrangements. SCDE discretionary funds and ad hoc load reductions are common, but reallocation of overhead and seed grants to faculty are not. Special KPU leaves are found, but sabbaticals, summer fellowships, and retreats or symposia are not. The private research center institutions seem to depend less than do the "A-Publics" on formal support arrangements and rely instead on recruiting pre-socialized faculty and then establishing a cultural milieu that supports that socialization.

Loads reflect the institutional commitment to research. Deans reported that about 25 per cent of faculty time is dedicated to KPU, indicating that a teaching load up to nine hours per academic period is normal. Faculty support this contention by reporting that they are usually asked to teach but two different courses per period.

Research productivity is clearly the primary criterion for both promotion and tenure decisions. Deans reported that exclusive of teaching effectiveness, graduate level R and D training is the primary recruitment criterion for new faculty.

The "A-Private" institutions rely more heavily than any other institutional category on inter-departmental appointments and other intra-IHE linkages. They do not, however, exhibit many extra-IHE linkages, probably reflecting their primary interest in basic research as opposed to the more applied orientation which such extra-IHE linkages suggest.

Productivity

The "A-Private" SCDEs rank high on productivity; their performance may be typified as follows:

+ The deans reported eight KPU activities in which their faculties "frequently" engage--a number fewer than the 12 reported by the "A-Public" deans but only because of the omission of applied or service-oriented activities.

+ Faculty reported personal involvement in five KPU activities on the average.

+ Faculty are frequent contributors to education journals--an average of 31 items to the 26 journals studied.

+ Faculty also contribute with regularity to RIE--an average of 18 documents.

- + These institutions are very frequent recipients of contracts and grants--an average of almost nine per institution with the majority coming from private foundations.[1]
- + Five of the 11 institutions in this category performed sufficiently meritoriously on overall KPU productivity as to merit the designation of "KPU Center."
- + Most of these institutions operate graduate level KPU training programs; as a class the "A-Privates" have trained 16 per cent of all SCDE faculty, a remarkable contribution considering the small size of the recruitment pool represented by graduates of these 11 institutions.

Other Public Institutions for Advanced Graduate Study ("B-Publics")

Demography

The 89 institutions in this category have a median enrollment of 15,900 students and produce an estimated 857 education graduates annually. Their SCDEs are staffed by 113 regular full-time faculty who are supported by 45 graduate assistants. Some 86 per cent of the SCDE faculty hold the doctorate as the highest degree, but only eight per cent hold the highest degree from some unit other than an SCDE. A larger proportion of the faculty is drawn from other "B-Public" institutions than from any other category. The average faculty member has 11 years of experience in an IHE; 66 per cent hold appointments in the senior ranks and 64 per cent are tenured. Of the "B-Public" institutions 97 per cent are AACTE members and 88 per cent are NCATE accredited at some level.

Mission

The general agreement on missions which characterized the "A" type SCDEs is missing for the "B-Publics." Instruction takes on much more importance than it did in either of the other instances. There are some critical disagreements among perceptions held by deans and faculty in these SCDEs. Deans characterized "in-service programs" as central among the 13 KPU missions they were asked to rate; the faculties, however, tended to regard research as bearing the institutional imprimatur, reinforcing that perception by indicating that their SCDE is in fact most nurturant of research. At the same time the faculty tends to describe its own major involvement in KPU as rendering ad hoc services. Deans and faculty exhibit disagreement about the major KPU thrust but, interestingly, the major faculty KPU activity is different from either of these perceived thrusts. Clearly ambiguities about expectations for faculty performance and about the standards for judging that performance exist. Further, while deans believe the institution expects faculty to engage in KPU activity, the faculty perceives only that the institution stimulates them to engage in it. On balance one must conclude that KPU as a mission does not have the thrust and clarity that it has in the "A" type SCDEs.

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[1] Foundation grants are more likely to be made to private institutions; government grants are more nearly evenly divided between public and private SCDEs.

Organizational Arrangements

The diminution of KPU interest at the mission level is reflected in a comparable reduction in institutional arrangements in support of KPU. In one sense the accouterments of KPU support are still there: these SCDEs operate centers, bureaus, or institutes, and appoint KPU coordinators, and the IHEs in which they are located have grants/contracts officers and grant information dissemination systems (although not usually research foundations). But only ad hoc load reductions, seed grants, and retreats/symposia may be commonly noted among other arrangements. Further, only 20 per cent of the defined normal load time is indicated by deans to be available to faculty members who wish to engage in KPU, as opposed to 25 per cent in the "A" types, but this time is over and above a 12-hour teaching load, not the nine-hour load common for "A-Public" and "A-Private" SCDEs. The definition of full time teaching load has apparently shifted from 12 to 15 hours in moving from "A" to "B-Public" levels, to allow for the ostensible 20 per cent reduction to accomodate KPU. Most "A" institutions would define 12 hours as a full time load and would not feel that a 12-hour teaching assignment left any flexibility for engaging in KPU.

Major emphasis is placed on research among promotion/tenure criteria but instructional performance is at least a co-equal criterion in this class of institution. Significantly, deans reported that other than teaching effectiveness, success in school settings is the primary criterion in faculty recruitment, a consideration heavily at the KU end of the KPU continuum.

The typical "B-Public" SCDE has few if any links with other departments of the IHE in which it is found; on the other hand, it frequently maintains formal links with extra-IHE agencies, not surprising in view of its more applied emphasis.

Productivity

As might be anticipated productivity indices decline in moving from the "A" to the "B-Public" level. The typical "B-Public" institution can be typified as follows:

+ The deans report eight KPU activities in which their faculties "frequently" engage, with a heavier emphasis on KU than on KP.

+ Faculty members themselves report that they engage in three KPU-related activities.

+ Faculty are regular contributors to education journals--an average of 16 credits in the 26 journals studied.

+ Faculty are occasional contributors to RIE--an average of six documents per institution.

+ These institutions are only occasional recipients of foundation or government grants or contracts--an average of one per institution.

+ Four of the institutions in this category are designated as "KPU Centers" and another 39 fall into either the "Other Outstanding Producer" or "KPU Active" categories. On the other hand, the modal category (36 institutions) is "Middle Range Producer" while 10 institutions are low or non-producers. The category seems to be bimodally distributed with a goodly number of institutions making substantial contributions.

+ Typically these institutions do not mount KPU training programs, but they do prepare 31 per cent of all SCDE faculty, and are particularly important as faculty for "D," "E," and "F" category SCDEs with the exception of "D-Private." These faculty have less training in and socialization to KPU than have those trained in "A" type institutions.

Other Private Institutions for Advanced Graduate Study ("B-Privates")

Demography

The 40 institutions in this category average an enrollment of 8,235 students and grant 205 education degrees annually. Their SCDEs are staffed by 27 regular, full-time faculty supported by 16 graduate assistants. Some 96 per cent of the SCDE faculty hold the doctorate, and 14 per cent have received their highest degree from a non-SCDE source. More "B-Private" faculty have been trained in "A-Public" institutions than in any other type. Average experience level for faculty is 12 years; 58 per cent hold senior rank and 60 per cent are tenured. Some 65 per cent of these institutions are AACTE members, and 53 per cent are NCATE accredited at some level.

Mission

Deans regard instruction as the most important mission, but among KPU mission areas, they selected "in-service programs" as most significant. Faculty, however, perceive research as most significant institutionally, as best nurtured by the present SCDE environment, and as most important in terms of their own personal involvement. The deans may be positing a new direction for these SCDEs, but faculty still regard missions in a more conventional and traditional way, perhaps in emulation of the "A-Privates" to which status they may aspire. Deans and faculty agree, however, that the institution stimulates KPU activity on the part of faculty, even if it does not actually expect or support it.

Organizational Arrangements

Only bureaus, centers, or institutes in support of KPU are common at the SCDE level; at the IHE level grants/contracts officers and grant information systems are found but research foundations are typically not. No support arrangements other than sabbatical leaves are commonly found.[1] Deans indicated that 20 per cent of faculty load is typically dedicated to KPU. The normal faculty load was reported as 10.5 hours per academic unit--lower than the "B-Public" SCDEs but higher than the "A-Publics" or "A-Privates." Faculty, however, indicated that they are typically asked to teach three different courses per period.

Both deans and faculty agree that research is an important KPU criterion, but no more than co-equal with instructional effectiveness. Success in school settings is the primary faculty recruitment consideration, other than teaching.

These institutions do not maintain intra-IHE links with other units--contrary to the tendency already noted as characterizing larger private institutions. Extra-IHE linkages are also uncommon.

Productivity

Institutional productivity for the "B-Private" group is not essentially dissimilar from the "B-Public" group, and may in fact be regarded as slightly superior in view of the relatively smaller size of these institutions. They may be typified as:

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[1] It should be noted that sabbatical leaves are used for a variety of purposes other than KPU; their existence is but a weak argument for KPU support.

- + Deans report five different activities in which faculty "frequently" engage.
- + Faculty members themselves, however, report only one "frequent" activity--that of ad hoc service.
- + Faculty are occasional contributors to education journals--an average of eight contributions per institution.
- + Faculty are infrequent contributors to RIE--only two documents per institution, on the average.
- + Only rarely does a "B-Private" institution receive a foundation or government grant or contract--about 0.8 awards per institution, on the average.
- + There is great variability among the "B-Privates" so far as productivity is concerned. One of the group qualified as a "KPU Center," but six were classed as "Other Outstanding Producers," three as "KPU Actives," and five as "Unusual Producers." None was classed as a non-producer, and seven were in one or another low producer category. The modal category, however, was "Middle Range Producer," with eight institutions so classified.
- + As a class "B-Privates" do not mount graduate level KPU training programs, and produce only six per cent of all extant SCDE faculty.

Public Pre/In-Service Teacher Education Centers ("C-Publics")

Demography

The 183 institutions in this category have a median institutional enrollment of 6,835 students but produce 629 degree recipients in education annually. The large number of education graduates is a major characteristic of these institutions. Together they constitute less than 14 per cent of all SCDEs but produce more than 30 per cent of all education degrees. Their SCDEs are staffed by 47 regular, full-time faculty supported by 14 graduate assistants. Some 78 per cent of the SCDE faculty hold the doctorate, with 14 per cent having received the highest degree from a non-SCDE source. A larger proportion of faculty were trained in "A-Public" institutions than in any other type. The average experience level is 12 years; 69 per cent of faculty have senior rank appointments and a very large proportion--81 per cent--hold tenure. Institutionally, 99 per cent are AACTE members and 84 per cent are NCATE accredited at some level.

Mission

The major mission of these institutions is instruction, more specifically, teacher training. Among KPU areas, however, deans perceive "effecting change in schools"[1] as having primary importance, while faculties rate "ad hoc services" as having highest SCDE significance, highest rate of personal involvement, and highest nurturance within the existing SCDE environment. The difference between deans' and faculties' perception is interesting; the deans may have adopted the new change oriented jargon (and hopefully, the concepts that underlie it) while the faculty still think in more traditional terms. Deans indicate the institutional posture to be one of stimulation of KPU activity, while the faculty tends to see it as simply a permissive atmosphere.

Organizational Arrangements

Organizational arrangements are substantially different from those typical of doctoral level institutions. SCDEs commonly do not exhibit KPU support agents or agencies, and IHEs typically can claim only a grants/contracts officer. Other arrangements, common in the doctoral institutions, are lacking: only sabbatical leaves (often used for other than KPU purposes) are typically found. The normal instructional load as reported by deans is 13 hours, and the modal SCDE reported no time allocated officially for KPU. Faculty reinforce this impression by reporting that they usually teach three different courses per academic period.

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[1] The category "effecting change in schools" is suspect as a response mode. It is dubious whether respondents understood it as intended--a more modern "change agent" approach. More than likely it was used as a euphemism for ad hoc service, or, in some cases, as a catch-all response that permitted the respondent to claim some kind of KPU involvement for himself or his institution.

Among promotion and tenure criteria, teaching clearly has precedence over any KPU activity. While KPU productivity may help to make a case it is by no means necessary to be promoted or placed on tenure. Success in instruction and in school settings is the major faculty recruitment criterion. These institutions do little to establish formal links with other IHE departments or centers; extra-IHE links are commonly found, as in "A" and "B" publics, apparently because of the press on public institutions to provide services.

Productivity

The "C-Public" institutions are for all practical purposes the last of the KPU producing categories. They may be typified as follows:

+ Deans indicate but two KPU activities in which their faculties "frequently" participate.

+ Faculty members indicate only one high-involvement KPU activity--ad hoc service.

+ Faculty are infrequent contributors to education journals--an average of three journal credits per institution.

+ Faculty are also infrequent contributors to RIE--an average of two documents per institution.

+ Only one institution in 10 attracts a foundation or government grant or contract.

+ In terms of overall productivity, the modal institution in this class is a "Middle Range Producer;" however, the distribution of this variable is skewed toward the low producing end of the continuum and the median institution is but an "Occasional Producer."

+ Graduate level KPU training programs are not maintained (not surprising, since these are not doctoral level institutions), and only three per cent of all extant SCDE faculty have taken their highest degree from this type of institution.

Private Pre/In-Service Teacher Education Centers ("C-Privates")

Demography

The 75 institutions in this category enroll 2,354 students and grant 175 education degrees annually. Their SCDEs have a faculty of 15 regular, full-time staff with seven graduate assistants. Some 69 per cent of faculty hold the doctorate, and 17 per cent have taken the highest degree from a non-SCDE source. The largest proportion of faculty have been trained in "A-Public" institutions. The average faculty member has accumulated 10 years of IHE experience; 56 per cent are appointed at senior ranks, and 48 per cent hold tenure. Institutionally, 97 per cent are members of AACTE and 93 per cent are NCATE accredited at some level.

Mission

Teaching constitutes the most important mission by far, but among KPU areas, deans indicate that applied research is predominant while faculty rate ad hoc services as most institutionally significant, best nurtured by the SCDE environment, and highest in terms of personal involvement. It is not inconceivable that the referrent which deans had in mind in the phrase "applied research" is not substantially different from what faculty members had in mind in rating "ad hoc services," so that there may be no more than an apparent conflict. Both deans and faculty agree that this type of institution is no better than "permissive" with respect to KPU activity.

Organizational Arrangements

Not surprisingly, organizational arrangements in support of KPU are largely lacking. Both SCDE and IHE level agents and agencies are nonexistent in the typical "C-Private" SCDE, nor are there any support mechanisms. Teaching loads are high (12.8 hours), and faculty typically report being required to teach three different courses per term. Teaching is the primary (and almost exclusive) criterion for promotion/tenure, and success in school settings is, along with instruction, the major recruitment criterion. Linkages with other agencies whether within or outside the IHE are rare.

Productivity

The "C-Privates" are for all practical purposes not engaged in KPU. They may be typified as follows:

+ Deans find it difficult to name even one activity in which their faculties "frequently" engage.

+ Faculty members typically claim only one area of involvement --ad hoc service.

+ There are virtually no journal contributions or documents submitted to the RIE system.

+ The number of foundation or government grants or contracts is small--an average of 0.3 awards per institution (although this is three times the rate of awards for their "C-Public" counterparts).

+ The modal productivity category is "Non-Producer," although one institution in this category is classed as an "Other Outstanding Producer" and seven others are "Middle Range Producers." The median category is "Idiographic Producer."

+ KPU training programs are non-existent and the number of faculty trained for other SCDEs is less than one per cent.

Other Institutional Categories

The remaining six institutional categories differ from each other only on demographic characteristics; so far as KPU activity is concerned, they may be regarded as in a quiescent state. The following paragraphs will summarize the demographic information for each type individually, but will provide a single overview statement regarding mission, organizational arrangements, and productivity in KPU.

Demography

Other Public Pre/In-Service Teacher Education Institutions ("D-Publics"). The 101 institutions in this category enroll a median 4,118 students and produce 484 education degree recipients annually--a not insignificant number that accounts for almost 13 per cent of all graduates although "D-Publics" are but seven per cent of all SCDEs. These SCDEs are staffed by 30 full-time, regular faculty, with no graduate assistants. Some 83 per cent of the SCDE faculty hold the doctorate, and 14 per cent have received the highest degree from a non-SCDE source. The largest proportion of faculty have taken their highest degree from "B-Public" institutions. The average faculty experience is nine years; 62 per cent hold senior rank appointments and 56 per cent hold tenure. Institutionally, 55 per cent are members of AACTE, but only nine per cent are NCATE accredited at some level.[1]

Other Private Pre/In-Service Teacher Education Institutions ("D-Privates"). The 203 institutions in this category enroll 1,530 students and graduate 125 education degree recipients annually. Their SCDEs are staffed by seven regular, full-time faculty, with no graduate assistants. Some 74 per cent of the SCDE faculty hold the doctorate, with virtually none receiving the highest degree from a non-SCDE source. The largest proportion of faculty received their training in "A-Public" institutions. The average experience level for faculty is nine years; 48 per cent hold senior rank appointments and the same percentage are tenured. Institutionally, 32 per cent are AACTE members and almost none--two per cent--are NCATE accredited at some level.

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[1] The very large proportion of all "D" and "F" type institutions are not

Public Pre-Service Teacher Education Centers ("E-Publics"). The 32 institutions in this category enroll 2,084 students and produce 200 education degree recipients annually. Their SCDEs are staffed by 13 regular, full-time faculty, and of course, since these are baccalaureate level institutions, there are no graduate assistants. Some 87 per cent of the SCDE faculty hold the doctorate, with seven per cent having received the highest degree from a non-SCDE source. The largest proportion of faculty is drawn from "B-Public" institutions. The average length of faculty experience in an IHE is 11 years; 83 per cent of faculty hold senior rank appointments and 70 per cent are tenured. Institutionally, 100 per cent are AACTE members and 94 per cent are NCATE accredited.

Private Pre-Service Teacher Education Centers ("E-Privates"). The 104 institutions in this category enroll 1,104 students and produce 78 education degree recipients annually. Their SCDEs are staffed by an average of five regular full-time faculty. Some 66 per cent of the SCDE faculty hold the doctorate and 20 per cent received the highest degree from a non-SCDE source. The largest proportion of faculty was trained in a "B-Public" institution. Average length of IHE experience is 10 years; 59 per cent hold senior rank appointments and 61 per cent are tenured. Institutionally, 100 per cent are AACTE members and 97 per cent are NCATE accredited.

Other Public Pre-Service Teacher Education Institutions ("F-Publics"). The 60 institutions in this class enroll 2,500 students and produce 100 education degree recipients annually. Their SCDEs are staffed by eight regular, full-time faculty with no assistants. Some 62 per cent of the

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NCATE accredited. Clearly one quality control mechanism in teacher education, i.e., national voluntary accreditation, is not operative for these institutions.

SCDE faculty hold the doctorate, and 10 per cent have received the doctorate from a non-SCDE source. The largest proportion of faculty was trained in "B-Public" institutions. The average length of faculty experience is eight years; 52 per cent hold senior rank appointments and the same percentage are tenured. Institutionally, 52 per cent are members of AACTE and 13 per cent are NCATE accredited.

Other Private Pre-Service Teacher Education Institutions ("F-Privates"). The 446 institutions in this category enroll 847 students and produce 68 education degree recipients annually. Their SCDEs are staffed by five regular, full-time faculty. Some 90 per cent of the faculty hold the doctorate, and virtually none have received the highest degree from a non-SCDE source. The largest proportion of faculty were trained in a "B-Public" institution. The average length of faculty experience in an IHE is six years; 40 per cent of the faculty hold senior rank appointments and five per cent are tenured--a remarkably low proportion. Institutionally, 37 per cent are AACTE members and but two per cent are NCATE accredited.

Mission

Missions for all of these institutions focus on the instructional function. Deans or chairpersons in public institutions name "in-service programs" as most important among KPU areas, while their counterparts in private institutions prefer the more emergent "effecting change in schools." Faculties when rating KPU areas either in terms of significance as SCDE missions, personal involvement, or degree of SCDE nurturance, are more likely to name "ad hoc services" (although it is interesting to note that "D-Private" faculties name "research," and "development, diffusion, and demonstration" as their chief involvement areas). Both deans/chairpersons and faculties tend to view the institutional support posture as one of mild encouragement or permissiveness; only in the case of "D-Public" institutions do both sets of respondents believe the institution actually stimulates KPU activity, and in the case of "E-Public" institutions do faculty perceive the situation that way. It should be noted, however, that slight shadings in favor of this or that activity in these classes of institutions are not nearly so significant as they would be, say, in doctoral level institutions; KPU thrusts are rare in all events and occupy positions of much less prominence than do teaching and instruction.

Organizational Arrangements

Since KPU is not perceived as an institutional mission by virtually any of the institutions in these categories, it is not surprising that one does not find extensive organizational arrangements in its support. SCDE level agents or agencies do not exist. Only "D-Public" and "F-Private" institutions typically have even a grants/contracts officer. Sabbatical leaves are usually found, but undoubtedly they are intended to support instruction rather than KPU.

Instructional loads are high--12-14 hours typically, with no time allocated to KPU except in the case of "D" institutions where the modal SCDE claimed 15 per cent. Faculty confirm that they are typically asked to teach three different courses per academic period. Instructional effectiveness is the primary criterion for promotion and tenure, and success in school settings and in instruction are the major faculty recruitment criteria. Virtually no intra- or extra-IHE linkages are maintained.

Productivity

Given the above described circumstances one could not hope for any recognizable productivity in these institutions, and in general one does not find it. They may be typified as:

+ Deans cannot specify a single KPU activity in which their faculties participate "frequently."

+ Faculty themselves typically name only ad hoc service as a KPU activity in which they are personally involved.

+ On the average journal or RIE credits do not amount to one per institution.

+ Foundation or government grants and contracts occur only at the rate of about one per every 10 institutions, except for the "D-Public" category, where the rate is about one in five.

+ The modal productivity category for all private institutions among these six types is "Non-Producer." Public institutions, particularly the "D-Public" category, show an appreciable skew to higher levels, however, and one "D-Public" institution is in the "Other Outstanding Producers" class. The publics are at least as likely to be "Idiographic Producers" as "Non-Producers."

+ Only about two and a half per cent of extant SCDE faculty have received their highest degrees from any of these six classes of institutions combined.

Summary

There is an enormous variation both in terms of demographic characteristics and in terms of KPU missions, organizational arrangements, and productivity among the 12 types of institutions studied. For all practical purposes commitment to KPU activities as missions is confined to the doctoral level institutions, and it is rare to find either organizational arrangements or productivity in institutional types that have not set some KPU activity as a mission. Within the doctoral institutions the "A-Public" and "A-Private" institutions dominate--not surprising in view of the way in which these types were originally defined. They alone seem to have the institutional commitment backed up with the hard resources needed to make KPU go. The world of SCDEs is clearly divided in KPU "haves" and "have nots," and it seems unlikely that the balance between the two can be upset, with new institutions joining the ranks of the "haves," without massive external intervention.

TABLE VI-2

SELECTED DEMOGRAPHIC CHARACTERISTICS OF SCDEs, BY INSTITUTIONAL TYPE

Category	Number of Institutions	Per Cent of SCDEs That Are Members of AACTE	Per Cent of SCDEs That Are NCATE Accredited	Median Institutional Enrollment	Median Number of Graduates in Education 1974-75[1]	Median Number of SCDE Faculty 1974-75[1]	Median No. of Graduate Assistants[1]
A Public	23	91.3	91.3	31,500	1,526	113	68.8
A Private	11	81.8	90.9	14,165	535	63	78.1
B Public	89	96.6	87.6	15,900	857	113	45.1
B Private	40	65.0	52.5	8,235	205	27	15.7
C Public	183	98.9	84.0	6,835	629	47	13.8
C Private	75	97.3	93.3	2,354	175	15	7.1
D Public	101	54.5	8.9	4,118	484	30	0.0
D Private	203	32.0	2.0	1,530	125	7	0.0
E Public	32	100.0	93.8	2,084	200	13	N.A.
E Private	104	100.0	97.1	1,104	78	5	N.A.
F Public	60	51.7	13.3	2,500	100	8	N.A.
F Private	446	37.0	1.6	847	68	5	N.A.

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[1] Based on RITE institutional sample of 135 cases.

[2] Based on RITE faculty sample of 1,387 cases.

TABLE VI-2, Concluded

Category	Per Cent of SCDE Faculty Holding Doctorate[2]	Per Cent of SCDE Faculty With Highest Degree from Non-SCDE Sources[2]	Modal Institutional Source for SCDE Faculty (Highest Degrees)[2]	Mean Number of Years Experience of SCDE Faculty in a College or University[2]	Per Cent of SCDE Faculty at Upper (Assoc. Prof. or Higher) Ranks[2]	Per Cent of SCDE Faculty With Tenure[2]
A Public	92.8	14.5	A-Public	13.7	77.6	78.9
A Private	96.1	29.9	A-Private	12.8	70.2	59.7
B Public	86.3	8.3	B-Public	11.4	65.9	64.0
B Private	95.8	13.9	A-Public	11.7	58.3	59.7
C Public	77.6	13.6	"	11.9	69.4	80.5
C Private	69.3	17.3	"	10.1	56.0	48.0
D Public	83.2	14.0	B-Public	9.1	61.6	56.1
D Private	73.9	0.0	A-Public	8.9	47.8	47.8
E Public	86.7	6.7	B-Public	11.0	83.4	70.0
E Private	65.9	19.5	"	9.8	58.5	61.0
F Public	62.1	10.3	"	8.0	51.7	51.7
F Private	90.0	0.0	"	5.9	40.0	5.0

[1] Based on RITE institutional sample of 135 cases.

[2] Based on RITE faculty sample of 1,387 cases.

TABLE VI-3

KPU MISSION EMPHASES IN SCDEs, BY INSTITUTIONAL TYPE

Category	KPU Activities Rated Highest for Own SCDEs by Deans or Chairpersons[1]	KPU Mission Perceived as Most Important in SCDEs by SCDE Faculty[2]	KPU Mission Area Rated Highest for Personal Involvement by SCDE Faculty[2]	KPU Mission Area Perceived by Faculty as Most Nurtured by SCDE Environment[2]	IHE/KPU Support Posture Perceived by Deans/Chairpersons[1] (Median Cat.)	IHE/KPU Support Posture Perceived by SCDE Faculty[2] (Median Cat.)
A Public	Applied Research	Research	Research	Research	6--Supports	4--Stimulates
A Private	Basic Research	"	"	"	5--Expects	5--Expects
B Public	In-Service Programs	"	*Ad Hoc* Services	"	"	4--Stimulates
B Private	"	"	Research	"	4--Stimulates	"
C Public	Effecting Change in Sch.	*Ad Hoc* Services	*Ad Hoc* Services	*Ad Hoc* Services	"	3--Permits
C Private	Applied Research	"	"	"	3--Permits	"
D Public	In-Service Programs	Effecting Change in Sch.	"	"	4--Stimulates	4--Stimulates
D Private	Effecting Change in Sch.	*Ad Hoc* Services	Research; R, D, and D	"	"	3--Permits
E Public	In-Service Programs	Effecting Change in Sch.	*Ad Hoc* Services	"	2--Encourages	4--Stimulates
E Private	Effecting Change in Sch.	*Ad Hoc* Services	"	"	3--Permits	2--Encourages
F Public	In-Service Programs	"	"	"	"	3--Permits
F Private	Effecting Change in Sch.	"	"	*Ad Hoc* Services; R, D, and D	"	2--Encourages

[1] Based on RITE institutional sample of 135 cases.

[2] Based on RITE faculty sample of 1,387 cases.

TABLE VI-4

SCDE ORGANIZATIONAL ARRANGEMENTS IN SUPPORT OF KPU, BY INSTITUTIONAL TYPE

Category	SCDE/KPU Support Agencies Found in 65 Per Cent or More of SCDEs In Category[1,3]	IHE/KPU Support Agencies Found in 65 Per Cent or More of SCDEs In Category[1,4]	KPU Support Arrangements Found in 65 Per Cent or More of SCDEs In Category[1,5]	Median Per Cent of Faculty Load Allocated for KPU Activity[1]	Median Normal Instructional Load (Semester Hours)[2]	Faculty Report on Average Courses Taught Per Academic Period[2]
A Public	A, B, C	E, F, G	All	≥25	≤9	2
A Private	A	F, G	R, S, V	"	"	"
B Public	A, B	"	S, U, X	≥20	≥12	"
B Private	A	"	W	4	9<12	3
C Public	None	F	"	0	≥12	"
C Private	"	None	None	"	"	"
D Public	"	F	W	15	"	"
D Private	"	None	"	"	"	"
E Public	"	"	"	0	"	"
E Private	"	"	"	"	"	"
F Public	"	"	"	"	"	"
F Private	"	F	"	"	"	"

TABLE CODE

[3] A--Bureaus, Center, Institutes.
B--KPU Coordinator.
C--Faculty KPU Committee.

[4] E--Research Foundation.
F--Grants/Contracts Officer.
G--Grants Information System.

[5] R--SCDE Discretionary Funds.
S--*Ad Hoc* Load Reductions.
T--Reallocation of Overhead.
U--Seed Grants.
V--Special KPU Leaves.
W--Sabbatical Leaves.
X--Retreats or Symposia.

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[1] Based on RITE institutional sample of 135 cases.

[2] Based on Rite faculty sample of 1,387 cases.

TABLE VI-4, Concluded

Category	Primary Promotion/Tenure Criterion Reported by Deans[1]	Primary Promotion/Tenure Criterion Reported by SCDE Faculty[2]	Primary Faculty Recruitment Criterion Reported by Deans/Chair.[1] (Excl. Teach.)	Links with Other IHE Units Found in 65 Per Cent or More of SCDEs In Category[1]	Links with Extra-IHE Units Found in 65 Per Cent or More of SCDEs In Category[1]
A Public	Research	Research	Prior Publications	Yes	Yes
A Private	"	"	Grad. Level R & D Training	"	No
B Public	Research/Teaching	Research/Teaching	Success In School Settings	No	Yes
B Private	Research	Research	"	"	No
C Public	Teaching	Teaching	"	"	Yes
C Private	"	"	"	"	No
D Public	"	"	"	"	"
D Private	"	"	"	"	"
E Public	"	"	"	"	Yes
E Private	"	"	"	"	No
F Public	"	"	"	"	"
F Private	"	"	"	"	"

[1] Based on RITE institutional sample of 135 cases.

[2] Based on RITE faculty sample of 1,387 cases.

TABLE VI-5

SCDE KPU PRODUCTIVITY, BY INSTITUTIONAL TYPE

Category	Number KPU Activities Faculty Frequently Do Listed by 50 Per Cent Deans/Chair.[1]	Number KPU Activities Reported as Currently Done by 50 Per Cent of Faculty[2]	Mean Number Education Journal Credits[3] (Three Years)	Mean Number RIE Credits[3] (Two Years)	Mean Number Foundation/ Government Grants[3,4]	Modal Productivity Category[3]	Graduate KPU Training Programs Available in Majority of Institutions[2]	Estimated Per Cent of All SCDE Faculty Trained in This Type Institution[2,5]
A Public	12	5	58	25	5.0	KPU Center	Yes	33.1
A Private	8	"	31	18	8.8	"	"	16.0
B Public	"	3	16	6	1.1	Middle Range Producer	No	31.4
B Private	5	1[6]	8	2.	0.8	"	Yes	5.8
C Public	2	"	3	2	0.1	"	No	3.1
C Private	0	"	1	<1	0.3	Non-Producer	"	0.7
D Public	3	"	2	"	0.2	"	"	0.4
D Private	0	"	<1	"	<0.1	"	"	0.7
E Public	"	"	"	"	"	"	Not Applicable	0.1
E Private	"	"	"	"	≪0.1	"	"	0.0
F Public	1	"	2	"	<0.1	"	"	1.3
F Private	0	"	<1	"	≪0.1	"	"	0.1

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[1] Based on RITE institutional sample of 135 cases.

[2] Based on RITE faculty sample of 1,387 cases.

[3] Based on RITE productivity studies.

[4] Foundation grants were studied for a three-year period; government grants/contracts for a 21-month period.

[5] Excluding unknowns (6.9 per cent) and faculty trained in "X" type institutions (0.4 per cent).

[6] This single activity (also included in all preceding rows) is ad hoc service.

CHAPTER VII

CONTEXTUAL FACTORS AND CONDITIONS AFFECTING INDIVIDUAL AND INSTITUTIONAL BEHAVIOR IN SCHOOLS, COLLEGES, AND DEPARTMENTS OF EDUCATION

The data gathered by the Research on Institutions of Teacher Education (RITE) project staff through institutional questionnaires, faculty questionnaires, preliminary site visits to 10 schools, colleges, and departments of education (SCDEs), final site visits to 20 SCDEs, secondary demographic sources, and conferences with SCDE deans all contributed markedly to the descriptive, contemporary scenarios which were reported in Chapter VI. In the original design of the study these contemporary scenarios were viewed as the normative base from which projections would be made of likely and alternative futures for SCDEs. Factors affecting that future were seen as external impact variables, e.g., teacher supply and demand, which would force, or at least influence, decisions that would modify the current normative structure of SCDEs.

However, the final round of site visits to 20 SCDEs convinced the researchers that this design overlooked an important set of variables affecting the present and future of education units in institutions of higher education (IHEs). As the field notes on the site visits were analyzed, strong and frequently repetitive references were reported from interviewers in regard to contextual factors and conditions within SCDEs and IHEs which were offered as explanations of why institutional and individual decisions had been made or were likely to be made. It would be elegant to be able to contend that these contextual factors and conditions were either (a) all susceptible to empirical validation by other data sources from the study or (b) woven together in a theoretical postulation which was necessary and sufficient to explain individual and institutional behavior in SCDEs or

IHEs. The only contention the researchers are willing to entertain currently is that these factors and conditions may affect the way in which SCDEs will respond to external pressures for change and it is in this context that they are reported in this chapter. From our vantage point, the observer looking to the future of SCDEs will likely missassess the power of external impact factors if he/she is not cognizant of factors and conditions within SCDEs which affect individual and institutional behavior in these units.

Orientation to the Data

In previous chapters, the researchers have offered caveats to the reader in data interpretation, but those warnings have always been rooted in empirical data gathering processes, e.g., the sampling bias toward SCDEs which were judged to be involved in knowledge production and utilization (KPU). In this chapter, the researchers are engaged in data interpretation and the validity and generalizability of the interpretations will seldom be established beyond reasonable doubt by reference to the empirical data of the RITE study. With that general forewarning in mind, there are some specific caveats with which to be concerned, i.e.:

1. As noted in Chapter III, and summarized in Chapter VI, SCDEs are not a homogeneous community of institutions. The factors and conditions reported in this chapter will be of varying significance to SCDEs and IHEs of varying types. Sometimes this will be signaled by the authors or will be obvious in the item; other times it will not. The heterogeneity of institutional sub-types has to be taken into account in assessing the validity and/or impact of any generalization within a specific institution.

2. The generalizability of a given condition or factor can be challenged even within the sub-group of SCDEs to which it is applicable. In some instances, the researchers can establish its existence only in a few

SCDEs, i.e., the institutions site-visited. This statement is not made to avoid responsibility for including an item in the chapter, but only to alert the reader to the fact that the researchers' defense of an item will often rest on grounds of face validity. To open the door to disagreement and debate, the researchers will state that no item was retained except on the grounds of likely generalizable effect for at least a sub-type of SCDEs.

3. The cumulative impact of the contextual factors on many readers may be the portrayal of the SCDE as an unchanging and unchangeable institutional setting. To place these factors in perspective, the reader needs to consider what set of factors would have been generated if the focus of the study had been local education agencies, or state education agencies, or private R and D agencies, or any of a number of non-educational bureaucracies designed to achieve the diverse purposes for which they were organized. An equally powerful, although undoubtedly different, set of contextual factors and conditions influence individual and institutional behavior in these institutions.

4. Finally, the impact of a given factor on individual or institutional behavior obviously varies depending upon the behavior under consideration. What may appear at first glance to be a factor impeding organizational change, e.g., emphasis within SCDEs on self-actualization and entrepreneurial behavior of the professor, may, in fact, be a stimulant to change if the direction of desired change is to increase externally supported research activity within an SCDE.

The purpose of this chapter is two-fold: (1) from a project-oriented point of view, the researchers will use these factors and conditions in assessing the likely future for SCDEs and the type and power of interventions that would be required to modify that future; (2) in a broader sense, this specification of factors and conditions may be useful (a) as a research tool for inquirers interested in studying SCDEs or in more general organizational research using SCDE sites, (b) as a discussion tool for SCDE administrators and faculty members interested in understanding and analyzing the present and future of their unit, and (c) as a planning tool for decision makers and change agents concerned with stimulating and institutionalizing change in SCDEs or using SCDEs as change agents in other educational settings.

The chapter will be organized in two major sections. First, a set of generalizations will be offered about SCDEs which are considered to be critical in understanding the context of these units. Second, a wider ranging inventory of more specific factors and conditions characteristic of such units will be enumerated.

Critical Contextual Conditions Affecting SCDEs

The review of individual factors and conditions which seemed to affect or explain individual and institutional behavior in SCDEs led to eight generalizations about SCDEs which are argued as (1) critical (of high impact) and (2) valid (of high probability) for a substantial number of SCDEs, especially in relation to current or projected KPU activity.

The Individual and the Institution

The culture of institutions of higher education (IHEs) is predominantly idiographic (i.e., emphasizing the self-actualization of the professor) rather than nomothetic (i.e., emphasizing the goals of the institution). This general cultural feature is characteristic of most SCDEs and is frequently formalized by legitimating the role of the professor as a private entrepreneur through the release of a portion of time (usually circa 20 per cent) for individual activity or consulting arrangements. The idiographic culture is strongest in SCDEs emphasizing research missions since national reference groups exist to reward and reinforce professorial productivity independently of the particular SCDE in which the professor is located. Faculty members in such SCDEs frequently view themselves as "cosmopolites" rather than "locals" and derive maximum reinforcement from agents and agencies external to their SCDEs.

IHEs and SCDEs, consequently, have neither the same prudential checks and balances on individual performance nor the ability to deploy or redeploy personnel characteristic of many bureaucracies. Administrators and faculty members can and occasionally do enhance their professional status on a national basis while failing to contribute proportionately to the nomothetic goals held by the institution. Administrators are frequently constrained from the pursuit of apparently legitimate institutional goals because they cannot redeploy personnel to staff the programs appropriate to those goals.

> GENERALIZATION #1: All organizations operate with the ever-present tension between the attainment of idiographic and nomothetic goals. Institutions of higher education live in an organizational culture which is strongly idiographic.

The Unit and the Institution

SCDEs operate within a broader institution as a competitive sub-system of that institution. Certain structural and organizational features of the IHE affect the SCDE in common with other sub-units; other features affect the SCDE differentially. The competition among the sub-systems of the IHE (departments, schools, colleges) is dulled by what might be termed a condition of "negotiated normalcy," i.e., a form of gentleman's agreement among units concerning what is fair and proper in competing for budget and staff, establishing or deleting programs, or carving out spheres of influence. This condition protects units against massive perturbations in the system, but simultaneously limits moves which might lead to significant changes. The state of normalcy is supported by the phenomenon of "loosely coupled units"[1] within the IHE, i.e., most departmental, school, college, or center programs within IHEs are minimally interdependent; they are tied together weakly; the success or failure of one does not necessarily determine the success or failure of another. This leads to a live and let live philosophy within the agreed upon normal state at the IHE level and subsequently within school and department levels.

The SCDE is, of course, influenced by these characteristics of the general IHE organization. Since the education unit on almost all campuses has been and is below average in prestige, it is left with a weaker bargaining hand in establishing or modifying the negotiated state of normalcy. This general status position is aggravated by the fact that certain core SCDE activity areas are viewed as of low status in most colleges and universities, i.e., undergraduate teaching, development, and service to practitioners.

The placement of the pre-service training program at the baccalaureate level reinforces the low status position of the program at the university (in common with all undergraduate instruction). The fact that the pre-service program is inextricably tied to the arts and science program leads to less autonomy than is characteristic of most of the university's loosely coupled units and especially the autonomy experienced by graduate training programs in other professions; note, for example, the popularity of the concept of teacher education as an "all-university function."

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[1] This term was borrowed from Karl E. Weick, "Educational Organizations as Loosely Coupled Systems," Administrative Science Quarterly (Volume 21, March, 1976), pp. 1-19.

> GENERALIZATION #2: The SCDE has been and is typically in a weak bargaining position within the university's system of negotiated normalcy. This is reflected in the obvious ways, i.e., below average resource allocations, vulnerability in periods of enrollment decline, difficulty in initiating new programs, and difficulty in providing rewards to faculty. The SCDE experiences less autonomy in operation and decision making than most graduate and professional programs at the university.[1]

The Unit and the Supra-structure

SCDEs live not only within IHEs but within a national configuration of units in and outside the university concerned with the training of professionals in education, i.e., local education agencies, teacher organizations, accrediting agencies, state education agencies, and the Federal government. Without attempting to describe or analyze this configuration in detail, there are certain features germane to a basic understanding of the SCDE within the configuration, to wit:

1. Institutional diversity. The operating sites for teacher education are incredibly diverse (1,367 SCDEs located in 72 per cent of all four year IHEs in the country). This diversity is uncharacteristic of any other professional training endeavor and creates, among its effects, great difficulty in mounting and sustaining change efforts designed to raise the quality of teacher preparation. For example, in modifying a single requirement relating to teacher education in a state, the involved SEA must consider the implications of meeting the requirement on the financing of all undergraduate instruction in the state since almost every college (large, small, rich, poor) will be likely to be operating a state-approved teacher training program.

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[1] SCDE influence, prestige, and autonomy are enhanced in situations where (a) SCDE enrollment is a significant percentage of the total institutional enrollment; (b) the SCDE has acquired substantial external financial support for its programs and activities; and/or (c) SCDE faculty have actively pursued and attained membership on influential university committees.

2. Quality control. The mechanisms maintained to enforce quality control in teacher education are malfunctioning. In 93 of the 1,367 SCDEs operating state approved teacher preparation programs, the general quality of the college is such that it is not able to qualify for regional accreditation as a four year baccalaureate degree granting institution. Fewer than 40 per cent of all SCDEs are participating in the national voluntary accreditation program in teacher education. The non-participation exceeds 80 per cent for the smaller institutions among which one would expect to find a significant number with limited resources.

3. Localized SCDEs. A significant number of SCDEs are operating in almost total isolation from the professional reference group formed by the supra-structure for teacher education. The constituency of these institutions is defined almost solely in terms of the immediately contiguous geographic region. They recruit undergraduates chiefly from the region, socialize them through student teaching in area schools, and place them in the local schools as teachers. These "tight little islands" are less members of the configuration of teacher education institutions than members of the public school-community configuration in which they are located. The expectations for faculty at these colleges are defined by their immediate reference group.

> GENERALIZATION #3: There is no national system for the development of the education professions or even a coherent national community of teacher educators. The diversity of sites for teacher education has developed in such a haphazard fashion that it is better described by the term "proliferation" than "diversity." The net effect is a configuration of individuals and institutions difficult to influence or change, not because they are either an entrenched bureaucracy or a monolithic establishment but precisely because they are not. The normal pressures operating on training institutions within a professional field are missing in a public, legal, or professional sense.

Governance and Decision Making

Despite the increasing pressures of institutional bureaucratization on the one hand and unionization on the other, the predominant governance pattern within the IHE and, consequently, the SCDE is the collegial mode. This forces, at a minimum, a search for consensus, broad tolerance of disparate views, and, conversely, the use of unilateral decisions by administrators and/or institutional coercion to change only as a last resort. The collegial mode of governance combined with the inexperience and lack of training of many IHE administrators and limited IHE investments in institutional research lead to decision making processes in IHEs/SCDEs which fit the Cohen, March, Olsen description of decision making behavior in ". . . situations which do not meet the conditions for more classical models of decision making in some or all of three important ways: preferences are problematic, technology is unclear, or participation is fluid."[1]

> GENERALIZATION #4: The decision making system within most SCDEs and between SCDEs and the university and SCDEs and external agencies is such that few agents can initiate or certify change unilaterally but many groups and individuals can veto change. A proposal for change within SCDEs can be said to be exposed to double or multiple jeopardy.

The Mission of SCDEs

Almost all SCDEs share a common mission, i.e., training teachers.[2] The pervasive implications of this truism are brought home by examining other possible mission areas; their paucity is startling. Research is perceived as of central importance only in the 34 SCDEs identified as research center institutions in the RITE classification system.[3] The "D" portion of educational "R and D" was not noted as a significant mission area by any institutional type studied. All KPU missions (with the possible exception of ad hoc service carried out by individual faculty for a fee) are concentrated almost solely in graduate level SCDEs.

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[1] Michael D. Cohen, James G. March, and Johan P. Olsen, "A Garbage Can Model of Organizational Choice," Administrative Science Quarterly (Volume 17, March, 1972), p. 16.

[2] A few institutions operate only graduate programs to train advanced educational specialists.

[3] Details regarding the RITE classification system are available in Chapter III, pp. 2-3, and in Appendix C.

> GENERALIZATION #5: SCDEs are conceived, organized and operated to train educational personnel, mainly teachers. Missions involving the SCDE in KPU activities must be considered complementary rather than integral to the SCDE in all but a few such sites (perhaps 50-60 of 1,367).

SCDE Budgets and Resources

The regularized operating income of almost all IHEs is derived primarily from student fees and tuition and/or state appropriations and scholarship support tied to student enrollment. Unsurprisingly, SCDEs are bound tightly in their fiscal structure to instructional headcount budgeting. The budgets and resources of SCDEs are, moreover, labor intensive, i.e., concentrating heavily on professorial personnel costs in contrast to other cost areas.

Investments in KPU activity by SCDEs, where they exist at all, show up in the form of reduced teaching loads for faculty. However, such provisions seem to be "bled out" of the budget after the fact rather than being built into the operating budget (note the graduates per education faculty member in public research center institutions, Table 5, p. 14, Chapter III).

> GENERALIZATION #6: Most SCDEs have little in the way of budget and resources to support institutional missions, programs, or activities in KPU. External agencies which frequently assume that SCDEs are staffed and budgeted to undertake significant responsibilities beyond instruction of students are operating on the basis of an illusion.

SCDE Faculty and KPU

Among IHE faculty, SCDE professors can be characterized as involved heavily in instructional assignments, advisement, placement, supervision of student teachers, and service activities with schools. Except in doctoral degree granting institutions they are infrequently provided with any released time for KPU activity. Many have little or no pre-employment training for or socialization to KPU activity. Post-employment socialization to KPU is weak in most SCDEs because, as was evident in Chapter V, SCDE institutional involvement in KPU activity is the exception rather than the rule. It is literally the case that some SCDEs operating doctoral level programs of preparation in the education professions are uninvolved or little involved in KPU activity.

However, SCDE faculty in all institutional types aspire to, or at least predict, personal involvement in KPU. The contrast between on-going faculty activities and projected activities by faculty is startling.

> GENERALIZATION #7: Most professorial personnel in education are weakly socialized to and little involved or uninvolved in KPU activity in education. However, most professorial personnel in education simultaneously predict personal involvement in KPU in the near future. The dissonance between what SCDE faculty do and what they aspire to do or feel they "ought" to do in KPU is so marked as to be almost certain to create personal dissatisfaction and intolerable role dissonance.

SCDE Faculty and the Reward System

Reward systems in all IHEs operating doctoral level programs are attuned to R and D activity on the part of professional personnel. Without success in R and D careers atrophy. With success, almost any other weakness in performance can be tolerated. Faculty engaged productively in research and scholarly activity are rewarded; faculty engaged productively in less prestigeful function areas (KU activities, undergraduate instruction) are commended. Promotion and tenure criteria are applied differentially so that "workmanlike" performance in R and D is sufficient for promotion, but "super" performance is required in emergent (KU) or low status (teaching) areas.

The effect of this emphasis on traditional, high status productivity is felt even in non-doctoral institutions. Although research and scholarly activity is less frequently required for promotion and tenure in such sites, it is almost always recognized and rewarded when it is found. In all institutional types, conventional scholarly productivity is more heavily emphasized in arriving at promotion and tenure decisions than was the case five years ago and is predicted by faculty and administrators to be even more heavily emphasized in the future.

Simultaneously, the demands on SCDEs for KU are mounting. Teacher education programs are to be moved into the "real world." On-site in-service training programs designed to be responsive to the needs of practicing teachers are widely urged. Field service demands continue, and their conventional forms are augmented by emergent change agent activities--helping schools to identify, adapt, adopt, and institutionalize innovations.

> GENERALIZATION #8: The clearest route to professional success in IHEs/SCDEs is through conventional productivity in research and scholarly writing. This situation creates two levels of conflict in SCDEs: (a) the emphasis on non-research activities in such units results in professional personnel being hard pressed to conform to the conventional reward structure in many institutions; and (b) the external press for SCDEs to respond to school problems moves SCDEs into activity areas that do not fit classical methods of rewarding faculty. Professors caught in this conflict risk their careers; SCDEs caught in this conflict risk their status and power within the institution.

An Inventory of Contextual Factors and Conditions Affecting SCDEs

Presented below is an inventory of contextual factors and conditions which includes the eight critical factors just discussed but also contains other items which, while deemed less central, are considered important to a thorough understanding of SCDE institutional life. Some of these items are less generalizable and should be viewed with less confidence; nevertheless, they have found their place in this inventory because they were found to be true and influential in at least one field site and hence are included for the sake of completeness. All the items should be regarded as propositions about SCDEs that seem likely but whose ultimate validity remains to be established.

The inventory is intended less to contribute toward the achievement of the project-oriented purpose of projecting the future of SCDEs than it is to serve as a research tool for inquirers, a discussion tool for SCDE faculty and administrators, and a planning tool for decision makers and change agents. In the hope that it will have such utility, the inventory is presented in this report as a separate section which can easily be detached for facsimile copying if desired.

The order of sections and items within sections in the inventory is not intended to imply any judgment about significance.

AN INVENTORY OF CONTEXTUAL FACTORS AND CONDITIONS AFFECTING SCHOOLS, COLLEGES, AND DEPARTMENTS OF EDUCATION

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Presented below is an Inventory of contextual factors and conditions which affect professional and institutional life within schools, colleges, and departments of education (SCDEs). The Inventory is composed of ten sections, each of which has multiple sub-items. The order of either sections or items should not be understood to imply any judgment of relative importance. Each item may be considered a proposition about SCDEs that seems likely but whose ultimate validity remains to be established.

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SCDE Missions

1. General Characteristics

a. SCDEs share a common mission, i.e., training teachers.

b. Knowledge production and utilization (KPU) missions are concentrated primarily in doctoral level SCDEs; almost solely in graduate level SCDEs.

c. Knowledge utilization (KU) missions involving field relationships and field service activities are more common in public than in private SCDEs.

d. The "D" portion of educational R and D is viewed as a low status, neglected mission across all SCDE types.

e. SCDEs have what might be considered "mission weights." There are "mission-heavy" institutions in which almost all faculty understand and are able to verbalize the mission of the institution unambiguously. In some instances, the mission is derived from religious affiliation, geographic location (e.g., urban), or special substantive interests (e.g., art, business, music). Other institutions have traditional mission emphases defined by broad, long-standing reference groups, e.g., land-grant institutions, national research center SCDEs. The largest group of SCDEs, however, can be considered "mission-light," in the sense that any one of a number of mission orientations would be equally reasonable as an institutional hallmark. Such SCDEs are frequently, if not continuously, searching for or vacillating among mission emphases. A final and large group of SCDEs can be considered "mission-free," i.e., they view the activities of the SCDE as a service or support function for the institution of higher education (IHE) in which they are located and neither maintain nor strive for a set of professional missions that are distinguishable from the overall institutional mission.

2. Mission Mismatch, Over-reach, Opportunity Costs

   a. Some SCDEs adopt missions which are not synchronized with their faculty strengths, constituency, base of fiscal support, or general IHE environment. These mission mismatches almost always lead to low morale and productivity.

   b. Mission over-reach builds up over time as pressures increase on the SCDE to take on all the problems confronted by education in a community, region, or state. The sharpest examples of this problem in recent years come from urban-based SCDEs which have been pressed to solve the urban community's educational problems with a handful of staff hired to teach classes to graduate and undergraduate students.

   c. SCDEs seem to give little time and attention to the trade-offs involved in the assumption of new or expanded missions. New missions are accepted as good things to do, opportunities not to be lost. The opportunity costs, what will have to be given up, curtailed, or done less well, are rarely or incompletely considered.

3. Mission-Activity Congruence

   a. The status of an activity within an IHE generally affects the position accorded that activity in the SCDE mission statements, e.g., relatively few SCDEs eschew the research mission although the level of research activity in most SCDEs is low.

   b. In contrast, the most frequent KPU activity involving SCDE faculty is field service, especially on an individual consulting basis, but service is seldom mentioned in SCDE mission statements.

   c. Despite the earlier noted (1, d) lack of emphasis on the "D" portion of educational R and D in SCDE mission statements, faculty involvement in development activities is reported with almost the same frequency as research involvement.

Deployment and Utilization of SCDE Faculty

1. Beyond the regularized assignment of faculty to class loads, the availability of faculty resources to support new institutional KPU thrusts, especially non-traditional KU programs involving field-based activity, is often more apparent than real, i.e.:

   a. Newer faculty are most susceptible to manipulation in assignment but the reward system in IHEs is least responsive to such non-traditional activities. The risk to the career of the new faculty member in using major blocks of his/her time on such activities is very high.

   b. Faculty of "star" status represent the skills frequently needed to succeed in new thrusts but they tend to be (1)over-committed, (2) highly idiographic in behavior, (3) oriented to national reference groups, and (4) well-established in conventional productive outlets.

   c. The apparently under-employed faculty who have time to devote to the new thrusts are often "drones," i.e., they are under-employed because they are unproductive. The investment of the time and energy required to raise them to a level of proficiency in a new area is usually disproportionate to their likely productivity in the area.

   d. The locally-oriented "regulars," while competent to assume responsibility for the new thrusts, have been called upon too often in the past and are already over-committed to established line functions. Assigning them to the new thrust is of limited utility since they must be replaced in the regular function to which they were previously assigned.

   e. Since new thrusts typically involve specialized knowledge and skills, a significant group of the faculty are technologically unemployable as a consequence of shifting market demands and mission emphases.

2. The "limited draw" available to the dean in redeploying personnel to new institutional emphases is exacerbated in IHEs/SCDEs by cultural characteristics which make the very concept of personnel redeployment inconsistent with the IHE value system, i.e., idiographic emphases, the professor as entrepreneur and specialist, tenured security of the professor, collegial governance.

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SCDE/IHE Administrators

1. New Deans or Chairpersons

   a. All involved parties (faculty, superordinate administrators, constituents) hold unrealistic expectations for newly appointed deans or chairpersons. With little in the way of new support, they attribute to the dean the ability to overcome long-standing constraints in the institutional environment. A predicted shortfall in the ability of the new dean or chairperson to meet these expectations is almost always correct.

b. New deans or chairpersons and new missions go together. The dean or chairperson typically brings a substantive interest or process specialization to his/her new role and formally or informally this is translated into a new or reinforced mission.

c. A change in SCDE administration activates power interests within the SCDE and sometimes across concerned IHE departments. At the pre-employment phase, emphasis is placed on selecting a dean or chairperson compatible to vested interests. In the immediate post-employment phase, efforts are made to co-opt the interest and support of the new administrator. In the final phase, the special interests are restructured in appropriate offensive and defensive postures.

2. Administrator Tenure

a. The inconstancy of SCDE/IHE administrative leadership personnel may facilitate the initiation of change in SCDEs (i.e., new deans and new missions) but undercuts the institutionalization of change. Professorial personnel are sometimes hesitant to respond to nomothetic demands which may turn out to be transitory aberrations in the institution's development.

b. During periods of marked change within SCDEs, the dean or chairperson is often viewed by faculty as the singular change agent upon whom the success of the innovation depends. This is an especially powerful factor in instances where the new thrust is not endemic to the mission of the SCDE. In KPU, for example, less prestigeful institutions seem to have fits and starts of KPU involvement and productivity; a reasonably heavy emphasis during a period of time when the SCDE administrator emphasizes the area, a diminishing period of activity if the successor is less interested in KPU.

c. Some IHE/SCDE administrators are planning for the future in a time frame that corresponds with the tenure they anticipate in their current assignment. The time frame of many administrators is insufficient to deal with the core problems confronted by the SCDE.

Images of SCDEs

1. R and D production units and individual departments that are high R and D producers project strong external images for the SCDE. They may, over time, become the dominant image.

2. Undergraduate, pre-service education reflects dimly to external audiences. In the case of national reference groups and KPU influentials it could be said not to reflect at all, e.g., qualitative rankings of SCDEs nationally are based typically on such activities as R and D, scholarly productivity, and advanced graduate study programs.

3. The image held by outsiders of the SCDE is influenced unduly by their perception of the dean or chairperson. Again, this is more likely to confuse national reference groups than local practitioners. The incumbent SCDE administrator is frequently symbolic of the primary mission image which the SCDE wishes to convey.

4. During periods of mission and activity transition, SCDEs suffer from an image "time-lag." In some instances, this may mean that the institution is living on its reputation; in others, opportunities may be thwarted because the potential of the SCDE is underestimated.

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Organizational Arrangements in SCDEs to Support KPU

1. KPU Bureaus, Centers, and Institutes

   a. Because of their high external visibility and ease of creation, bureaus, centers and institutes are employed frequently as a mechanism for initiating new thrusts in SCDEs.

   b. Fewer general purpose, permanent research and service bureaus are being established in SCDEs. Contemporary centers tend to have a specified substantive emphasis, and an *ad hoc* organizational mandate. They are more opportunistic in response to external funding possibilities, and more likely to change either their substantive or process focus.

   c. Extant bureaus and centers in SCDEs exhibit symptoms of an aging process which interferes with their productivity. The pressure frequently placed on such units to generate a programmatic thrust or hallmark subsequently impedes their ability to respond to emerging social-educational demands and funding opportunities. The few internally funded positions become clogged with tenured personnel of fixed interests and, sometimes, declining productivity.

d. If KPU centers begin to lose capacity to attract external resources, they often are subject to sharp criticism internally since they do not typically have a regularized line function, e.g., instruction, to fall back on as a productive, money-producing institutional contribution.

e. Non-bureau or center faculty are frequently hyper-critical of such bureaus since they are perceived as shelters within which faculty are paid directly to produce R and D which subsequently is given heavy weight in the IHE reward system.

f. KPU units have often been charged with unrealistic and/or conflicting demands by SCDEs. Simultaneously, they have been expected to be (1) change agencies stimulating and modeling KPU behavior in and for the entire SCDE faculty; (2) externally oriented agencies responding flexibly to outside funding opportunities; (3) linking agencies bridging researcher and practitioner interests in research, service, development, and diffusion.

2. General Support Mechanisms for Faculty

a. Almost no SCDEs other than doctoral level institutions provide any regularized time for faculty to engage in KPU activities.

b. IHEs and SCDEs often pose expectations for faculty involvement in KPU without providing the support implied by those expectations. Expectations are enforced by taking KPU productivity into account in promotion and tenure decisions, but the efforts of the faculty member to carry out KPU activities are not supported by the provision of time, often called "released time," commensurate to them. Instead the institution relies upon low-cost, stimulatory devices such as faculty committees for research, or grants information systems intended to apprise the faculty member of likely funding sources. These low-cost or no-cost organizational mechanisms to stimulate KPU activity without providing time allocations for KPU aggravate faculty who feel that expectations are being held up to which they cannot respond.

c. Public and private doctoral level institutions approach the question of organizing to support faculty involvement in KPU differently. The public institutions frequently employ formal mechanisms, e.g., coordinators of research, faculty symposia, etc. The private institutions rely more heavily on informal processes of socialization and selective retention to attain their ends.

d. The typical IHE reinvests few of its contract or grant overhead funds in KPU activity. Consequently, faculty in units which generate substantial external grant and contract income perceive IHE based service units for KPU (e.g., research foundations) as devices to skim off overhead from academic units rather than agencies designed to serve faculty in KPU.

e. The most powerful, and most expensive, support mechanisms for faculty in KPU are (1) released time for faculty designated for KPU activity and (2) selection and selective retention of faculty with strong KPU interests.

f. What appear to be powerful organizational support mechanisms for faculty involvement in KPU are blunted in their impact if the institution has no history or tradition of productivity in KPU. It is not possible to overcome quickly deficiencies in the socialization of faculty to KPU productivity by introducing organizational support mechanisms.

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Organizational and Cultural Characteristics and Norms

1. Idiographic-Nomothetic Balance

a. The culture of institutions of higher education is predominantly idiographic (i.e., emphasizing the self-actualization of the professor) rather than nomothetic (i.e., emphasizing the goals of the institution).

b. The role of the professor as a private entrepreneur (e.g., consultant) for a portion of his/her time (usually circa 20 per cent) is legitimated in many IHEs and SCDEs.

c. SCDEs emphasizing research missions, which are typically supported by a national reference group, amplify the impact of an idiographic culture. Their faculty members tend to be "cosmopolites" rather than "locals" and derive maximum reinforcement from agents and agencies external to the SCDE.

d. IHEs do not have the same institutionally-based prudential checks and balances for individual performance characteristic of many other bureaucracies. Faculty members and administrators can succeed in enhancing their professional status on a national basis while failing to contribute proportionately to institutional goals or, in some instances, while contributing to the failure of local institutional goals.

2. The SCDE Within the IHE

a. IHEs live within a state of "negotiated normalcy;" a form of gentleman's agreement among units concerning what is fair and proper in competing for budget and staff, establishing or deleting programs, or carving out spheres of influence. This condition protects units against massive perturbations in the system but, simultaneously, limits moves that might lead to significant changes.

b. The state of normalcy is supported by the phenomenon of "loosely coupled units"[1] within the IHE, i.e., most departmental and center programs within IHEs are minimally interdependent; they are tied together weakly; the success or failure of one does not necessarily determine the success or failure of another. This leads to a live and let live philosophy within the agreed upon normal state at the IHE level and subsequently within school and department levels.

c. The SCDE is impacted upon uniquely by factors (a) and (b) since:

   (1) The professional training program for pre-service teachers is an undergraduate program inextricably tied to the arts and sciences undergraduate program. This intersection leads to less autonomy than is experienced by many professional schools, e.g., the concept of teacher education as an all-university function.

   (2) The SCDE is generally a below average unit in IHE prestige and status with a weaker bargaining hand in establishing the negotiated state of normalcy. This status position is reinforced by the fact that certain core SCDE activity areas are inherently low status activities in many SCDEs, i.e., development, service, undergraduate teaching, and support and nurturance of practitioner groups.

d. SCDE influence and prestige within IHEs is enhanced in situations where:

   (1) SCDE enrollment is a significant percentage of the total institutional enrollment;

   (2) The SCDE has acquired substantial external financial support for its programs and activities;

   (3) SCDE faculty have actively pursued and attained membership on influential university committees.

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[1] Karl E. Weick, "Educational Organizations as Loosely Coupled Systems," Administrative Science Quarterly (Volume 21, March, 1976), pp. 1-19.

3. Governance and Decision Making

   a. Despite the increase in the dual pressures of institutional bureaucratization and unionization, the collegial mode is still the idealized and predominant governance pattern within IHEs and, consequently, SCDEs.

   b. The collegial mode of governance combined with the inexperience and lack of training of many IHE administrators and limited IHE investments in institutional research lead to decision making processes in IHEs/SCDEs which fit the Cohen, March, Olsen description of decision making behavior in ". . . situations which do not meet the conditions for more classical models of decision making in some or all of three important ways: preferences are problematic, technology is unclear, or participation is fluid."[1]

   c. Recent reductions in IHE fiscal support is giving rise to greater centralization of decision making on issues, policies, and practices involving fiscal commitments, e.g., active presidential level review of all personnel decisions.[2]

4. Institutional Size and KPU

   a. KPU productivity is constrained in smaller institutions because:

      (1) KPU involvements normally require staffing flexibility not available in the small institution; at least the ability to provide replacement personnel for faculty released to work on grant or contract activities.

      (2) Small faculties demand generalist skills; most KPU activities require specialization.

      (3) Small institutions typically do not have apprentice researchers in the form of graduate students.

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[1] Michael D. Cohen, James G. March, and Johan P. Olsen, "A Garbage Can Model of Organizational Choice," Administrative Science Quarterly (Volume 17, March, 1972), p. 16.

[2] The RITE staff was alerted to the existence of a counter move granting greater sub-unit autonomy through decentralized budgeting. However, few instances were discovered whereas greater centralization of budget making was a widespread phenomenon.

b. The generalist life of the professor in the small institution is akin to the generalist distribution of labor in the small town. All faculty members must be involved in instruction (usually in several courses), student advisement, supervision of student teaching, placement, committee assignments on the college campus, etc. Specialization is impossible since no faculty member can be supported solely by the resources accruing from a single activity.

c. Baccalaureate level institutions find it difficult to maintain KU contacts with local educational agencies since they do not maintain a fifth year program which brings them into regularized contacts with practicing teachers.

5. Budgeting and KPU

a. IHEs and SCDEs are bound tightly in their fiscal structure to instructional headcount budgeting.

b. The budgets and resources of SCDEs are labor intensive, i.e., concentrated heavily on personnel costs in contrast to other cost areas.

c. Investments in KPU activity by SCDEs, where they exist at all, show up in the form of reduced teaching loads for faculty. However, such provisions are typically "bled-out" of the budget after the fact rather than being built into the operating budget, e.g., research center public institutions assign released time for faculty involvement in KPU but still maintain a very high student-faculty instructional ratio. The very use of the term "released time" for KPU establishes its complementary rather than core status among faculty activities in SCDEs.

d. IHEs have reinvested few of their grant and contract overhead funds to support or nurture new KPU endeavors.

e. IHEs/SCDEs have invested little "hard money" in institutional research, evaluation, and planning.

6. Local Mythologies

SCDEs maintain and nurture local myths about the institution which seem demonstrably false to the external observer. Some are debilitating: they eliminate the consideration of alternatives and serve as *ex post facto* explanations of failure, e.g., cultural or geographical isolation, teaching overload, budgetary inflexibility. Others are supportive: they serve to raise the *esprit de corps* of the institution, e.g., perception of the SCDE as an elite KP oriented unit, or the best regional liberal arts college, or the producer of sought after teachers. One of the most remarkable current myths involves teacher placement. Despite national figures to the contrary, SCDE personnel in all types of institutions insist that their record of teacher placement has been, is, and will continue to be excellent.

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SCDE Faculty Characteristics

1. Pre-service Training and In-service Development

a. Most professors in SCDEs begin their careers with a low level of training and experience in KPU. Most doctoral students in graduate programs in education are not exposed to KPU experiences during their period of graduate study and do not have an opportunity to publish during their doctoral student careers.

b. Beginning professors are not subject to the patterns of supervision or personnel development characteristic of most bureaucracies.

c. SCDEs/IHEs have minimal in-service or retraining opportunities for faculty during their careers. The consequence of this personnel development deficiency is apparent with the recent emergence of surplus professorial staff in SCDEs in one specialization while shortages exist in another within the same SCDE. The less dramatic, but more general, consequence is that professorial personnel tend to retain pre-service training deficiencies throughout their careers.

2. Job Characteristics

a. IHE/SCDE professorial personnel enjoy high job security.

b. After the early stages of a professor's career (five-10 years) during which promotion and tenure are granted locally, the advancement of and reward to the individual is determined chiefly by the professional community external to the local institution.

c. Among IHE faculty, SCDE professors can be characterized as involved heavily in low status IHE activities by the nature of their job assignment, i.e., undergraduate instruction, advisement, placement, supervision of student teachers, and service activities with schools.

d. The job assignment and work of the professor is relatively independent and isolated, i.e., it infrequently intersects the work of his/her colleagues and seldom influences or is influenced by the success or failure of a colleague's work.

3. Socialization to KPU Productivity

a. Pre-employment socialization to KPU productivity is infrequent for beginning SCDE professors. Job assignments during doctoral study in education are more likely to involve teaching, advisement, supervision, and staff administrative experiences than KPU experiences.

b. Post-employment socialization of SCDE professors to KPU activity varies across the entire spectrum--none to all. In general, however, the socialization processes are weak in R and D and scholarly productivity, especially when compared to teaching and, to a lesser extent, service.

c. Socialization to KPU activity in SCDEs requires higher institutional effort than socialization to teaching since the latter is an immediate and regularized part of the professor's assignment while the former is not.

4. Collegiality

a. The extra-institutional search for collegiality by the professor with KP interests seems to have psychological roots as deep or deeper than the actual need for intellectual exchange. He/she needs to find a means for valuing himself in a "foreign" environment, i.e., most SCDEs do not provide a strong collegial or cultural environment in support of R and D.

b. Inter-institutional collegiality (invisible colleges) is more oriented to KP exchange than to KU or teaching activities. These latter exchanges would be more likely to occur through "close-in" regional groupings of institutions. Such consortia or groups of SCDEs are infrequent and, where they exist, are more likely to involve administrators than faculty members.

5. Faculty Perceptions and Attitudes

a. The disparity between actual SCDE faculty involvement in, and their aspirations for involvement in, KPU are startling. Faculty projections of involvement over the next five years in publication, for example, predicted an increase by a factor of more than three. SCDE faculty are, in general, dissatisfied with their current level of productivity in and utilization of time for KPU.

b. In contrast with expressed dissatisfaction with their own involvement and productivity in KPU, most SCDE faculty express a high level of satisfaction with their SCDE. Their recommendations for change are incremental and their institutional projections for the future (unlike their personal projections) are similar to the present and remembered past.

c. There is a significant attitudinal difference among young, KPU-oriented faculty members across institutional types. In smaller, less prestigeful institutions, these faculty indicate that they are transients and will eventually move on to an institution in which they can engage in KPU. In the doctoral level institutions they are struggling to establish their careers locally, often assuming that their entire professorial career will be spent at one university.

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Faculty Reward Systems in SCDEs

1. Differences Among Institutional Types

Although there are some generalizations about faculty reward systems that are true across all institutional types (e.g., younger faculty are being screened more closely for promotion and tenure than were their senior colleagues; research and scholarly productivity is a high status reward activity whether or not the institution has stated an explicit mission in the area), it is also the case that emphases vary systematically across types. It is self-evident, for example, that success in advanced graduate instruction is irrelevant to baccalaureate level institutions. Conversely, many faculty in doctoral level SCDEs work in departments with no undergraduate course offerings. A general typification by institutional type is presented in Table VII-1 and will serve as a backdrop against which the factors noted in subsequent subsections of this heading can be assessed. Even the table does not capture the differences that could be noted by forming more homogeneous sub-groups, e.g., the research center institutions among the doctoral institutions place a much higher emphasis on KP productivity than the other doctoral institutions. Nonetheless, Table VII-1 captures the major inter-institutional differences in faculty reward systems.

2. Differential Rewards Among Activity Emphases

a. Faculty engaged productively in function areas which are traditionally of high status in IHEs (research, scholarly publication) are rewarded; faculty engaged productively in emergent function areas (KU activities) and/or traditional

TABLE VII-1

DIFFERENCES IN EMPHASIS ON FUNCTION AREAS IN PROMOTION AND TENURE DECISIONS IN SCDEs BY INSTITUTIONAL TYPE

Function Area	Institutional Type		
	Baccalaureate Level Institutions	Masters Level Institutions	Doctoral Level Institutions
Undergraduate Teaching	Central to the evaluation process. Eventual success in the institution depends upon success in this area.	Significant in the evaluation process.	Entirely irrelevant in some sub-areas, e.g., educational administration. Always included in mission statement and criteria for promotion and tenure. Seldom determines the success of the professor. Extreme performance is sometimes recognized.
In-Service and Masters Level Teaching	Usually irrelevant; a few courses offered in some institutions.	Of considerable importance. A high status activity comparable to advanced graduate instruction in doctoral institutions.	Same as above. Low status activity not given much attention.
Advanced Graduate Instruction	Irrelevant.	Irrelevant.	Integral to faculty assessment; tied to R and D productivity. Comparable to undergraduate teaching in baccalaureate institutions.
Research and Scholarly Productivity	Almost never required; always a bonus when in evidence.	Seldom required; always a bonus when in evidence.	Without success in this area careers atrophy. With success, almost any other weakness can be tolerated.
Development	Never required; usually treated as "research" above.	Seldom required; usually treated as "research" above.	Considered more important within the SCDE than the IHE; a complementary area.
Knowledge Utilization Activities	Occasionally of interest to the SCDE. Usually treated as a bonus when in evidence.	Widely varying emphasis. Public masters institutions are likely to view it as a major criterion; less likely in private colleges.	A complementary area; viewed as a bonus but not a substitute criterion for research.

areas which are low status in IHEs (service, undergraduate instruction) are commended.

b. Promotion and tenure criteria are applied differentially so that "workmanlike" performance in traditional, high status areas is sufficient, but "super" performance is required in emergent and low status areas.

c. Rewards granted to faculty for productivity in emergent or low status areas (which often reflect the nomothetic goals of the SCDE) are more likely to take the form of salary increments or job perquisites than promotion or tenure.

d. KU activities are seldom included among criteria critical to faculty evaluation for promotion and tenure. Service as a criterion is more often meant to imply work on departmental or university committees than field service. In fact, service on influential university committees facilitates promotion and tenure in all institutional types.

3. Changing Patterns in Faculty Reward Systems

a. In the immediate past (three to five years), and for the foreseeable future, IHEs/SCDEs have and will continue to place a heavier emphasis on research and scholarly productivity in assessing faculty for promotion and tenure than has been the case previously. Substitute criteria for R and D productivity are less frequently being allowed.

b. Despite protestations to the contrary by most administrators, IHEs/SCDEs are screening younger faculty for reappointment, promotion, and tenure more closely than was the case for their senior faculty colleagues. Budgetary limitations and the availability of large numbers of new doctorates are affecting decisions about selective retention of faculty. Superordinate review of SCDE level personnel decisions is more thorough. The criteria are not being modified but the application of the criteria has changed.

c. The tightening of promotion and tenure standards is felt more sharply in SCDEs (and a number of other professional school settings) than in some of the predominantly graduate arts and science departments since a university level emphasis on R and D productivity tends to disadvantage the professional school by definition. The SCDE, for example, is obliged to fulfill a series of missions beyond teaching and research that involve faculty in service, development, field-based activities, etc. which constrain R and D activity options.

d. The consistent evidence that SCDEs will continue to place emphasis on traditional function areas in faculty evaluation is likely to cause serious problems for individual faculty who become involved in emergent areas in knowledge utilization. SCDEs can predict a continuing conflict between expectations held by reference groups in the field and those held and rewarded by the IHE.

4. Other General Observations on Reward Systems

a. Whatever criterion of faculty productivity is emphasized in a multi-purpose institution, certain academic units will flourish and others will struggle, e.g., a school of agriculture almost has to avoid consciously being outstanding in service; an advanced graduate chemistry or physics department is hardpressed to produce a low level of publications by faculty in refereed journals.

b. Shifting institutional missions or mission emphases always catch short some proportion of the faculty who were employed under one set of conditions and expectations and now work under another. The conflict is most dramatic in its effect on junior faculty who are seeking promotion and tenure, but may be equally difficult for more veteran faculty whose contribution becomes less valued.

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SCDE Responses to Change

1. Responses to External Impacts

a. SCDEs seem quite vulnerable to external pressures for change or requests for assistance. Obviously, they are vulnerable to certification mandates for specific courses for teachers. SCDEs have had an historic commitment to service activities with schools which has often been criticized as too responsive, i.e., a "service station." They have reacted to widely varying patterns of public and private funding. Most larger SCDEs have endeavored to respond to local educational and social problems, e.g., bi-lingual education, urban education, multicultural education, etc.

b. Many of the external thrusts brought to bear on SCDEs, especially those funded by change agencies, have been short term uncoordinated change efforts. They might be described as "light impact" thrusts that do not touch the core of the SCDE's operation, e.g., they are handled by an ad hoc center or cadre of faculty who stay together for the duration of the funding period. The effect of multiple "light impacts" may be substantial over time but is hard to assess on a project-by-project basis.

c. SCDEs confident of their own status and prestige within their higher education reference group are simultaneously less vulnerable to external change impacts and more confident in initiating internally motivated changes of magnitude. Low status teacher education institutions, for example, hew the line to state program accreditation and certification requirements and changes in those requirements. High status institutions feel free to break away from requirements and to respond to mandated changes by juggling course titles while ignoring the intent of the change.

d. External funds from the Federal government and private foundations have been used extensively (especially by doctoral level institutions) to initiate change programs internally. Since such funds are supplemental to the regular institutional budget, they avoid the problem of competing priorities internally and normally can be used for projects on which faculty participation is voluntary. However, the record of institutionalizing such activities within SCDEs (or any other educational agency for that matter) after the funds are withdrawn has not been good.

2. Responses to Internal Impacts

a. The primary forces for change within SCDEs currently and in the immediate future are the twin pressures of declining IHE budgets and SCDE enrollments. The overwhelmingly most frequent response to these forces has been across-the-board cuts designed to save harmless individual faculty jobs, departments, programs, and centers. The net long range effect of this strategy may be the inverse of what has been termed an institution's margin of excellence, i.e., a margin of mediocrity.

b. Budgetary reductions are having multiple effects on SCDEs, i.e.:

(1) They tend to restrict reinvestment of resources for institutional improvement.

(2) In establishing priorities in decision making, money generating activities have an advantage over money-losing activities. In many instances this means that maintenance activities are valued more highly than improvement activities.

(3) Decision-making on budget-related matters is becoming centralized at higher levels in the bureaucracy and communication across decision levels is more guarded.

(4) Institutions that moved into the vanguard in terms of KPU or instructional innovation have been among the first faced with the necessity of retrenchment. Proposed new ventures are greeted with more than usual caution.

3. Problem Avoidance Responses

Some SCDEs are responding to needed changes in what appear to be necessary and sufficient ways. However, current circumstances are complicating the ability of SCDEs to respond. Conventional tools of change (higher budget, more faculty) are missing. Some of the problems confronted by SCDE administrators and faculty have reached a level of severity where their satisfactory solution would (1) place what is perceived as an impossible drain on limited financial resources, (2) challenge long-held value systems or traditions of the institution; and (3) remove the job security of the faculty. Faced with these situations many SCDEs have:

a. Asserted a degree of change (accomplished or contemplated) which outstrips the evidence the external observer can assemble that change has taken place. In some instances, the word replaces the action so completely that the institution creates a new "local mythology."

b. Turned to ritual non-solutions to buy time or avoid confronting the problem altogether. Popular non-solution tactics (which may, of course, in some instances be serious planning efforts) include committees, commissions, task forces, etc.

c. Initiated dysfunctional responses which give the appearance of targeted actions. The most popular of these is a low cost move in a problem area in which the institution cannot afford to face up to the central problem, e.g., the appointment of a part-time administrator to coordinate or stimulate activity in an area where released time for broad faculty involvement would be required to solve the problem.

d. Formally denied that a problem exists, typically by asserting that "natural" processes will take care of the problem over time.

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The National Configuration of SCDEs

1. Uncharacteristically for professional fields of training, preservice teacher education is dispersed among almost all four year IHEs in the country. There are 1,367 state approved teacher training programs in the United States (72 per cent of all four year IHEs).

2. Teacher education is an option available conveniently to most undergraduate students. The bulk of the training at the undergraduate level for all teachers (*circa* 85 per cent for secondary trainees) occurs in IHE units other than the SCDE. This has given rise to

the concept of teacher education as an "all-university function." In fact, undergraduate preparation for teachers outside the SCDE is seldom distinguishable from undergraduate preparation for any IHE student.

3. Responsibility for teacher education quality is unclearly diffused among SCDEs, state education agencies, local education agencies , the organized teaching profession, a national voluntary accrediting agency, and arts and science departments within IHEs.

4. The established quality control mechanisms in teacher education are malfunctioning. The weakest units ignore participation in national voluntary accreditation with impunity. Seven per cent of the professional programs are being operated in colleges too weak to obtain regional accreditation as baccalaureate degree granting institutions.

5. Despite the incredible institutional diversity in the field, subsets of institutions exist with significant concentrations of faculty, training activities, or KPU activities:

   a. Nearly 40 per cent of all SCDE faculty work in the 163 doctoral degree granting institutions.

   b. Well over two-thirds of the total education graduates complete their work in education in doctoral or public masters institutions.

   c. KPU activity in education is concentrated in circa 60 of the 1,367 SCDEs.

6. There are a significant number of SCDEs (especially, but not restricted to, baccalaureate level institutions) in which the constituency of the institution is defined in terms of the immediately contiguous geographic region. Many of these institutions are an integral part of a highly localized system of schools that reinforces local mores and norms. They recruit undergraduates chiefly from the region, socialize them through student teaching in area schools, and place them in the local schools as teachers. They are viewed by the local system of schools as the most satisfactory SCDE from the standpoint of teacher preparation.

7. The configuration of institutions and agencies involved in teacher education is (1) so large, (2) so dissimilar in terms of institutional resources and missions, and (3) so free of interdependence across agencies that teacher education is difficult to influence or change.

CHAPTER VIII

LIKELY NEAR-FUTURE SCENARIOS FOR SCHOOLS, COLLEGES, AND DEPARTMENTS OF EDUCATION

Introduction

Normative data collected about schools, colleges, and departments of education (SCDEs), reported in Chapters III through V of this report, permitted the typification of the current status of SCDEs; these typifications were summarized in the form of current scenarios in Chapter VI. If this current status is taken as a benchmark, the future for SCDEs could be evolved from it as the result of the interaction of two sets of variables: contextual factors as outlined in Chapter VII, which represent the internal dynamics of SCDEs and their parent institutions of higher education (IHEs), and external factors, conditions outside the purview of either the SCDE or the IHE, but which nevertheless influence the SCDE in significant ways. This chapter will: (1) inventory an array of external factors of potential significance to SCDEs; (2) venture a series of predictions about the "near-future" of SCDEs derived from an assessment of these external factors in interaction with the contextual factors discussed in Chapter VII; (3) project likely effects of these predictions and organizational reactions to these effects within the general population of SCDEs across the country; (4) recast the contemporary scenarios of KPU in SCDEs in light of these predictions; and (5) outline briefly the near-future dilemmas or issues in KPU planning which these scenarios raise for national level planners and change agents concerned with the total configuration of KPU policy in SCDEs, for IHE-level planners and decision-makers, and for faculty and administrators in SCDEs.

An Inventory of External Factors Impacting SCDEs

The list of external factors likely to impact upon SCDEs which follows was derived from secondary literature sources, interviews with SCDE/IHE personnel conducted during the project site visits, selected responses from the institutional and faculty questionnaires,[1] and discussion with and analysis by the project's Board of Visitors. The list is undoubtedly incomplete. The major criteria applied by the investigators for the inclusion of factors were redundancy, that is, items that were repeated by several sources as trends or events likely to affect SCDEs, and cogency, that is, items that could be argued forcefully and directly as likely to impact SCDEs. Because they are commonly cited factors, the items should come as no surprise to the reader, and in that sense, the section adds no new information except that it codifies and systematizes what everyone "seems to know" about external factors affecting SCDEs. The major reason for displaying this list of factors is to encourage (or at least to permit) the reader both to disagree with the inclusion or exclusion of an item and to debate the judgments made by the investigators which led to the predictions in the second section of this chapter.

The investigators do not wish to claim more for this inventory than can be delivered. The original conception of the study proposed more extensive empirical work in identifying external factors, obtaining consensus about them, and assessing their interactive effects than was possible during the duration of the finally negotiated grant period. But neither is it the intent to claim less for the inventory than seems justified. The factors included do represent a synthesis of current observations about the near-future of SCDEs as represented in the literature and in fairly extensive samples of expert opinion. If major factors are missing, the investigators should be scored on that point. If the logical judgments supporting the predictions are open to attack, they should be attacked if this document or a revision of it is to be maximally helpful to planners and decision-makers concerned with SCDEs.

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[1] Responses of deans or dean's office personnel and faculty members to future oriented questionnaire items can be found on pp. III-69-80 and IV-37-57. The faculty members were asked to respond directly to questions about external factors of significance to SCDEs, pp. IV-44-47, and about reactions made by SCDEs to those factors, pp. IV-47-55. Faculty questionnaire responses were considered by the investigators in formulating the inventory and predicting the future, but the reader will note significant differences in those responses and the final judgments made in this chapter. This is, of course, due to contravening evidence from the literature and from other respondents which the investigators judged to be more convincing.

The inventory is grouped into nine factor clusters that seemed to the investigators to represent areas which are probably always of concern to SCDEs although the nature of individual items, and their inclusion or exclusion, would change from period to period in the history of teacher education.

Income and Expenditure Factors

1. Decrease in amount of, or rate of growth in, regular funds accruing from tuition or state appropriations for support of basic instructional activities and/or knowledge production and utilization (KPU) activities.

2. Decrease in amount of, or rate of growth in, discretionary funds available from the Federal government and private foundations for student support and facilities.

3. Decrease in amount of, or rate of growth in, discretionary funds available from the Federal government and private foundations for the support of KPU activities.

4. Continuing increases in costs of rendering services of all types, by SCDEs as well as by institutions of higher education in general.

5. Altered emphasis from knowledge production (KP) to knowledge utilization (KU) activities in discretionary funding from Federal, state, and local sources.

6. Shift in strategy of Federal funding, especially by the National Institute of Education and the U.S. Office of Education, from general support of KPU activities generated on the initiative of individual inquirers and agencies to specification of targeted responses to national educational needs (typically via Requests for Proposals--RFPs).

Personnel Supply and Demand Factors

1. Decrease in or stabilization of demand over the next five years for:

    a. Teachers, administrators, and specialized personnel in elementary and secondary schools.

    b. Professorial personnel in SCDEs.

    c. Educational KP personnel in conventional non-SCDE settings, e.g., laboratories and centers, private research agencies, state education agencies (SEAs), and local education agencies (LEAs).

2. Increase in demand for:

    a. Teaching personnel in some specializations within elementary and secondary education, e.g., special education, early childhood education, career education, bilingual education.

    b. Teaching personnel in educational settings outside conventional elementary and secondary schools, e.g., pre-school, day care centers, adult and leisure education, vocational-technical education, community colleges, industrial training programs.

    c. Teachers with specialized skills in dealing with particular student groups and/or program emphases, e.g., alternative schools, multi-cultural education, international programs.

    d. Educational KU personnel in SEAs, LEAs, and, to a lesser extent, in laboratories and centers, private KU agencies, etc.

3. Continuing backlog of certified teachers and other educational personnel being produced by SCDEs currently and in the immediate past.

4. Activation of a dormant, reserve pool of teachers and other educational personnel as inflation and the changing role of women encourages those who have withdrawn from active service to resume their professional careers.

Competition Factors

1. Emergence of competitive programs of training for the education professions, including Federally-sponsored teacher centers, external degree programs, and the direct involvement of LEAs, SEAs, and local and national professional associations of teachers in teacher training.

2. Emergence of diverse post-secondary educational opportunities, e.g., community and junior colleges, technical institutes, which siphon off entering students from IHEs and thus reduce the recruitment pool for SCDEs.

3. Emergence of competitive agencies to carry out KPU activities, e.g.,

regional educational laboratories, state education agency or local school district research, development, evaluation, and dissemination offices, teacher professional associations and unions, profit and non-profit R & D or consulting firms.

4. Diminished influence of SCDEs relative to other educational agencies, e.g., competitive advantage of private R & D firms in responding to RFPs; capacity-building grants by Federal education agencies to state, intermediate, and local education agencies, and to proprietary consulting firms.

Governance Factors

1. Increase in state education agency authority, responsibility, and resources relative to the SCDE in, for example, certification, program accreditation,[1] cooperative teacher centers, in-service education requirements and programs, intermediate service units, KU activities.

2. Increase in involvement of the organized teaching profession in certification, state program accreditation, and national voluntary accreditation.

3. Increasing interest in and pressure from local school districts and local associations of teachers to play more significant roles in pre-service and in-service education as well as in KPU activities at individual SCDEs.

4. Lessening influence of national voluntary accreditation in teacher education.

New and Altered Instructional Program Factors

1. Increase in demand for in-service education in less formal, more convenient settings.

2. Increased demand for targeted in-service and pre-service programs, experiences, and resources which address directly problems confronted by teachers in attempting to meet educational requirements arising in their communities and classrooms, e.g., remedial language instruction, bi-lingual education, cultural differences.

3. Increasing social and legal pressures to respond effectively to diverse student populations which have previously been poorly served, e.g., mainstreaming, "search for special students."

4. Press from within the teacher education community to adopt new programs that appear to have advantages for personnel training, e.g., microteaching, diagnostic teaching.

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[1] SEAs have always carried responsibility for certification and program accreditation functions. This item recognizes their increasing concern for intra-state accreditation independent of NCATE, and the growing reciprocal system for certification of individuals attending state approved programs under the leadership of the National Association of State Directors of Teacher Education and Certification.

5. Press to adopt programs and processes strongly advocated (and sometimes legally mandated) by groups within and outside the teacher education community, e.g., competency-based teacher education, experientially-based teaching, laboratory-based teaching.

Status and Influence Factors

1. Decline in status of, esteem, and support for IHEs by general public constituencies, alumni, special reference groups.

2. Diminished influence of and reliance upon SCDEs by national governmental executive and legislative agencies.

3. Increasing dissatisfaction with SCDE training programs reflecting the continued and increasing public dissatisfaction with the performance of schools in meeting basic social needs.

4. Continuing incredulity about R & D in SCDEs as an effective vehicle to educational improvement in schools.

5. Doubts about the effectiveness of SCDEs in assuming newer KU roles, e.g., as linking agents or agencies, as sites for dissemination activities.

Formal Control Factors in Education

1. Shift to decentralized program patterns by the Federal and state governments, e.g., revenue sharing, basic opportunity grants, voucher systems, tuition grants.

2. Increase in Federal control of IHEs resulting from affirmative action, Title IX, increased accounting and auditing, clearance of forms by the Office of Management and Budgeting, detailed monitoring of grants and contracts, safety and health regulations, regulations governing human subjects research, and privacy/confidentiality legislation.

3. Increased control of IHE/SCDE programs by state planning and coordinating agencies, e.g., higher education commissions, state boards, legislative mandates.

Informal Control Factors

1. Increasing press to involve minority groups and women as staff members in carrying out SCDE programs and responsibilities.

2. Increased community involvement in decision-making in LEAs and, indirectly and directly, in SCDEs, e.g., parity requirement in Teacher Corps programs.

3. Increasing input into SCDE planning and decision-making by classroom teachers, particularly in relation to in-service training programs.

4. Increasing influence of graduate and undergraduate students upon

the content and processes of training programs for teachers and other educational specialists.

Factors Influencing Federal Support for Educational KPU[1]

1. Increasing emphasis on KU activities in an effort to link the existing and emergent knowledge base to practice.
2. Increasing pressure to involve practitioners in KPU processes.
3. Increased emphasis on strengthening educational KPU on a national scale as evidenced by the mandate to the National Institute of Education (NIE) in its authorizing legislation; the establishment of a Dissemination and Resources division within NIE; the support by that unit of a series of studies on EKPU capacity; and capacity building grants made by NIE and USOE to SEAs and LEAs.
4. Increased sensitivity to building KPU responsiveness to practitioner needs and to institutionalizing KPU capacity in local school districts and state education agencies, e.g., capacity building grants, National Dissemination Network.

An Overview of the Near-Future of SCDEs

The predictions which follow are speculative. They attempt to account simultaneously for the contextual factors described in detail in Chapter VII and the external impact factors just enumerated. They are sometimes rooted in demographic data which are difficult to refute, e.g., predictions of enrollment for SCDEs; but they are as frequently based on strong inferences which new events could influence markedly, e.g., assumptions about Federal support for KPU at the very time a new administration is assuming responsibility for policy and program development in education.

The investigators have attempted to assess the likely interaction of factors as well as their main effects. Some factors are reinforcing, e.g., stable IHE budgets and declining SCDE enrollments add power to the prediction of declining SCDE budgets. Some, however, are offsetting; e.g., the emergence of specialized growth markets in special education, vocational education, etc., in a period of declining markets might lead logically to the conclusion that certain program areas would be cut back sharply or dropped altogether while others would be instituted or expanded rapidly. The contextual factors in IHEs/SCDEs, however, make this an unlikely prediction, i.e., retraining opportunities are minimal, tenure provisions are strong, the idiographic culture is ingrained, redeployment of personnel for any purpose has always been difficult in all IHE departments. This is not to argue that individual SCDEs might not respond with major program alterations but rather that this strategy of response is unlikely across SCDEs as a whole. Both reinforcing and offsetting tendencies were taken into account as fully as possible.

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[1] Obviously this sub-section of the inventory is not correlative with the eight which preceded it. These items relating to Federal impacts on SCDEs have been included or foreshadowed in preceding sections. The cluster is highlighted in the inventory because of the special focus of the study on educational KPU.

These predictions are designed to offer what the title of the section proposes--an overview of the likely near-future of SCDEs. Subsequent sections will deal more specifically with likely effects and the question of the future for KPU in SCDEs.

Basic Budgetary Support

Observers of the general IHE scene are almost unanimous in predicting that the next five years will find colleges and universities struggling to "keep up" in the race between the increased cost of delivering services and the relative stabilization of income from tuition and state support sources. The SCDE is more likely to be impacted by this fiscal crunch than most academic units on campuses since SCDEs typically have experienced a sharper enrollment decline than other departments, and the SCDE has not traditionally been in a strong bargaining position for its negotiated share of university resources even when resources were plentiful. The vehicles most apt to offset the weak negotiating position, e.g., high enrollments and substantial "soft" money support through grants and contracts, seem not to be likely conditions for SCDEs in the next few years.

> PREDICTION #1: There will almost certainly be a decrement in "real" funds available in SCDEs in the near-future to support the range of basic functions assigned to such units. The positive side of this prediction, if a recent disaster can ever be view viewed positively, is that many SCDEs have been absorbing actual and relative budget cuts for the past three to five years and the predicted decrement may, consequently, be less sharp than the cut-back already experienced.

Support for Knowledge Production Activities

There are no signals on the national scene to indicate an increase in funds to be invested in R & D activity in education by either the Federal government or private foundations. The experience of the recent past would argue that any increases over the next five years would be insufficient to offset the increased costs confronted by agencies in carrying out R & D. Three related factors are likely to exacerbate the problem of attracting R & D funds to SCDEs, especially funding from the Federal government. Firstly, the past decade has seen the emergence of strong, competitive private research agencies in which Federal contracts are their fiscal lifeblood. Such agencies will continue to attract R & D funding that might otherwise accrue to SCDEs. Secondly, R & D funds from the National Institute of Education and the Office of Education have been employed with increasing frequency for highly specified R & D targets through competitive, frequently short term Requests for Proposals (RFPs). This funding tactic is much better sutied to the research agency than to the IHE/SCDE with its multiple functions, all of which are carried out within academic terms intended for instructional purposes. Finally, the Federal government has committed a significant portion of its R & D resources to agencies established by NIE and OE to increase the research capacity in education--laboratories and centers. In periods of limited R & D funding this reduces the discretionary funds for which SCDEs will be competing.

The comments to this point have dealt with the likely availability of external funds (often referred to as "soft money") to support knowledge production activities in SCDEs. But, of course, a major portion of the R & D budget for any SCDE which is active in the KP arena is assigned to this function area out of the regular SCDE budget. As that budget is constrained (Prediction #1) one can expect, at best, a proportional decrement in the funds allocated to R & D. In fact, the actual situation will undoubtedly be worse than that prediction. The basic appropriation to SCDEs from both state sources and tuition is tied closely to instructional headcount. Only a tiny proportion of SCDEs have been able, even in the more affluent past, to reserve significant amounts of that appropriation to support the R & D function locally. Over the next several years it is reasonable to predict that it will be more rather than less difficult to acquire and justify funds for R & D purposes as the overall appropriation for the functions of the SCDE becomes less adequate. All bureaucracies respond to primary line functions and the core objective of the SCDE is instruction. Although research may be argued theoretically to be integral to instruction and to the purpose of IHEs, past experience with policy and decision-makers attests strongly to the fact that it is viewed at best as a complementary function. Such functions suffer competitively in bureaucracies in times of fiscal need.

> PREDICTION #2: Fiscal support for knowledge production activities in SCDEs will decline, probably significantly, over the next five years.[1] The total decline will result from a drop in funds expended for research in education by the Federal government and private foundations combined with a decrement in the regular SCDE budget apportioned to R & D activities.

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[1] The reader should note that this prediction, even if true, is irrelevant for most SCDEs, i.e., as noted on p. V-38, "Most observers would probably agree that at best the 125 institutions. . . represent the current institutional involvement of SCDEs in KPU." Such differential effects by SCDE type will be taken into account directly in the fourth section of this chapter which deals with changes in the contemporary scenarios of SCDEs.

Support for Knowledge Utilization Activities

The recent Federal level emphasis on dissemination (under which term it is clear that the full range of knowledge utilization functions is subsumed) is likely to continue and probably increase over the next five years. Despite the historic interest manifested by SCDEs in KU (e.g., the school study council movement, field service bureaus, individual consulting work by professors, and in-service development programs for educational personnel), the initial KU emphasis in Federal support has been placed on LEAs and SEAs. The very recent teacher center legislation, a combination of training and KU activities, would indicate that SCDEs will have a difficult time asserting priority in the acquisition of external support for KU programs.

In contrast with the predictions offered under #1 and #2 above, the picture for support of KU activities in SCDEs in the near-future is less clear. Even assuming that prime contract and grant funds for KU are directed toward SEAs and LEAs, it is not unreasonable to imagine that these agencies will turn to SCDEs for assistance in planning and carrying out their KU ventures. The press on SCDEs to re-orient their in-service programs to field settings is likely to be appealing to the SCDE since the in-service market for services is taking on increased importance with the dwindling demand for initially certified teachers. While few SCDE constituent groups agitate for sustained or increased effort in R & D, many are concerned about the involvement of the SCDE in helping practitioners, schools, and communities solve local and regional problems. On the other hand, the reward system for SCDE personnel (especially in doctoral level institutions) is antithetical to heavy field commitments for professors. Moreover, KU activities are time consuming and expensive and any agency under budgetary pressure finds it difficult to invest in newer, more expensive ventures while trying to hold its own in basic function areas.

The interplay of the various forces affecting SCDE involvement in KU activities over the next five years is difficult to predict. The following assertion is based on one critical assumption, i.e., that during this time period there will be no major allocation of Federal funds to SCDEs to stimulate and support their active movement into the KU arena.

> PREDICTION #3: Attention to and fiscal support for SCDE involvement in knowledge utilization activities will increase slightly over the next five years. This prediction assumes that SCDEs will respond, as best they are able, to an increased Federal level of interest in KU activities and will be called upon by LEAs and SEAs to assist in carrying out their KU responsibilities. Since this increased emphasis will effectively draw upon a stable pool of resources and personnel within the SCDE, it will be a factor contributory to the predicted decline in activity level and resources for R & D noted in #2 above. Disregarding values which SCDE personnel, planners, or observers of the higher education scene may place on the relative balance of KP and KU activity in SCDEs, the latter represents an area of opportunity and expansion; the former does not.

Support for Training and Instructional Activities

When the view of the future is taken as a five year time span, the recent (past five years) decline in enrollments in training programs for the education professions and demand for trained personnel in these professions cannot be considered a transitory phenomenon. No currently available demographic data support the optimism expressed by many institutional and faculty respondents in this study that enrollments in SCDEs are more likely to increase than decrease over the next five years. However, it may well be the case that enrollment declines in education have "bottomed-out" (or nearly so) and the modal prediction of the respondents that there will be no significant change in enrollments in SCDEs may be reasonable.

This is more likely to be the case for undergraduate, pre-service trainees in education than for their graduate level counterparts. Both at the masters and doctoral levels there are factors which cause the observer to question the assumption of stable enrollments. Firstly, graduate enrollments have held up better over the past five years, i.e., the projected decline is less likely to have "bottomed-out." Secondly, alternative modes of in-service education, e.g., teacher centers and the general move on the part of LEAs, SEAs, and professional associations of teachers to become involved in the design and operation of training programs for teachers, are on the increase and will surely attract potential students away from SCDEs. Thirdly, the decline in the market for professors of education obviously followed rather than preceded the market decline for elementary and secondary level teachers and its effect has not been fully felt in doctoral level institutions. Finally, the demise of the Education Professions Development Act (EPDA) was effected in 1976 and support under that program was focused on graduate level trainees.

There are, of course, pockets of program expansion in the midst of the decline. Teachers in special education, vocational and career education, early choldhood education, bi-lingual education, etc. are still in short supply and these pockets will support the prediction of stability in enrollment at the pre-service level in those SCDEs that are large enough to accommodate such specialized training programs. As noted earlier, however, the intra-SCDE adjustments required to take advantage of these market opportunities frequently present major difficulties since generalist faculty cannot easily be transferred to specialized programs.

A few SCDEs are redefining their training programs to extend beyond the traditional definition of the education professions, e.g., human services, helping services, etc. This development has the potential of opening previously untapped markets for SCDEs but does not seem to be sufficiently widespread to be noted as an innovation likely to spread to many institutions in the near-future. The more realistic expanding market would seem to lie in the in-service education area but, as noted earlier, the SCDEs' possibility of capturing this market is limited by competitor agencies that are exhibiting vigorous activity.

There seems little likelihood that the Federal government will increase its support for training functions in SCDEs, having just abandoned EPDA and having shown a strong inclination in the past to concentrate on training support to meet quantitative manpower demands rather than qualitative improvement in instruction.

> PREDICTION #4: Although cyclical increases and decreases in professional school enrollments have occurred in the past and will occur in the future, there is no reasonable basis on which to assume anything other than the stabilization or a slight decline in pre-service teacher education enrollment in SCDEs and a distinct decline in enrollment both in graduate level in-service and advanced graduate study programs. The likelihood that the general situation will be offset by increased enrollment in specialized areas, SCDE activity in field-based in-service education, or a redefinition of SCDE training functions to encompass a broader set of helping profession roles is very remote. With SCDE budgets tied closely to instructional headcount, it is very likely that the funds to support the instructional function of SCDEs will also decline.

Program Quality in SCDEs

Barring explicit interventions undertaken to modify the near-future of SCDEs, these institutions as a whole are destined to enter a down-cycle which will be reflected in their productivity and overall program quality. If SCDEs had accumulated a significant "margin of excellence" through resource acquisition in periods of IHE affluence, the upcoming period of resource stability and decline could be offset more effectively. They did not! Increased teacher education enrollments were absorbed by most SCDEs with modest professorial staff additions. Enrollment declines have been accompanied by sharper staff cutbacks.

Program decrements will be felt across the board. Some smaller, marginal institutions will simply drop their teacher education programs. That may, in fact, be advantageous to overall quality in teacher education. The overwhelming percentage of the smaller pre-service programs will have already limited human resources stretched even thinner. Those that have initiated innovative programs will be pressured to move back to lower cost, conventional classroom-bound instruction. Many of the masters level public institutions have suffered the sharpest enrollment cuts. Again, the greatest pressure will fall on the SCDEs that attempted to adopt more individualized, clinically-oriented programs. The pressure in in-service education will not be to work toward field-based programs but to offer courses, frequently on-site, that will attract large enrollments at low instructional costs. The doctoral level SCDEs will be hard-pressed across their several function areas. They have always been expected to "bleed-off" a significant proportion of their support for advanced graduate study and KPU activity from high enrollment pre-service and in-service courses for teachers. The doctoral level institutions that have attempted to redress this balance and maintain higher quality teacher education offerings will be in the most difficult position to protect their involvements in teacher education, advanced graduate study, and KPU.

As noted earlier, R & D investments will be especially difficult to protect and it is unreasonable to assume other than a mild decrement in KP productivity. In this case, the idiographic culture of the research center institutions will protect the level of productivity since many individual professors will continue their personal programs of R & D activity despite dwindling support sources and institutional pressures to move toward other activity areas.

PREDICTION #5: Program quality in SCDEs will decline over the next five years. The decline will not be isolated to any single SCDE function area. Program innovations will be depressed. Low cost, high income instructional tactics will be emphasized. R & D activity will diminish. KU involvements will have to be self-supporting.

Perceptions of SCDEs

As noted in the inventory of external factors, the perception of SCDEs held by various groups creates a continuing problem for the SCDE. Many practitioners feel that SCDE training programs have not been but should be field-based; need to be less general and more targeted to special problems and school populations; have not focused on the specific skills required in the classroom but should do so. Many school people and change agents feel that SCDEs have been unresponsive to the need for solving school problems; have failed to carry out their KU responsibilities. R & D conducted by SCDEs has been attacked on both qualitative and quantitative grounds.

This is not the place either to register a complete litany of complaints or to debate their justification; but the fact is, fairly or unfairly, many client groups and policy makers would agree with the Congressman who noted in arguing for teacher center legislation that "schools of education haven't done their job."[1] The previous predictions of diminution of funds and decline of student population would lead most observers to predict conservatism and stabilization of program: a general decline in program quality is undoubtedly the path that will be followed and leads to the following prediction:

PREDICTION #6: Current perceptions held by many clients and policy makers that SCDEs are not performing adequately in either teacher training and/or KPU will be exacerbated over the next five years. Institutions are in a weak to impossible position in responding to client criticisms or program demands in periods of significant budgetary and resource reductions. Their energies

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[1] American Association of Colleges for Teacher Education, "Legislative Briefs" (AACTE:. Washington, D.C., Vol. II, No. 7, October, 1976) p. 4.

> and resources must of necessity emphasize institutional and individual survival and maintenance functions rather than improvement functions.

Governance of Teacher Education

The governance pattern in teacher education is already in a state of considerable flux and should change quite markedly over the next few years. The organized teaching profession is committed on a national basis to full participation in the processes of teacher certification and teacher education program accreditation. Continued pressure will be exerted to open up decision-making about the training of teachers to a variety of parity groups. IHE/SCDE programs will be influenced more directly by state level planning and coordinating agencies for higher education.

Added to these pressures which bear directly on teacher education is the shift in the general locus of power in education from the universities, and to a lesser extent from the Federal government, to state and local education agencies. Under the general stimulus of revenue sharing, the SEAs have gained significantly in influence over the past five years.

> PREDICTION #7: SCDEs are entering a period of shared control of teacher education programs quite different from the formal state control over certification and accreditation which they have experienced in the past. The next five years will be characterized by negotiation among agencies to determine the appropriate roles to be played by the several partners. Surely there will be a loss of autonomy for SCDEs in program development, operation, and evaluation. Shared control with SCDEs as the first partner among equals would have to be considered the most optimistic prediction of the consequences of the negotiation.

Nature of Changes in Teacher Education

For the variety of reasons cited in the previous seven predictions, the next few years would seem to be an unlikely period in which to predict significant growth in the knowledge base supporting the training of educational professionals and/or substantively-based experimentation in the field. Substantive gains in a field are usually preceded by the investment of capital in R & D and field experimentation. In contrast, structural manipulations are frequently cost-free.

> PREDICTION #8: The next five years are much more likely to be characterized by experimentation on the form or structure of teacher education than upon its substance. Governance patterns may well be modified, accreditation may move from a national voluntary to a state or national mandatory base, the locus of in-service programs may move from the campus to teacher centers, etc., but the essential substance of training programs will remain relatively intact.

Conclusions

If teacher education follows the course on which it is apparently set, the upcoming five years can probably be defined, using economic terminology, as a "recession." Some marginal institutions with low teacher education enrollments and general fiscal problems will undoubtedly drop their teacher education programs altogether, and a decrease of circa 10 per cent in the total number of teacher education sites (about 135) does not seem improbable. The majority of the remaining institutions will attempt to "ride out" the period with conservative, low-cost instructional programs, making incremental adjustments in budget and program as needed to keep the ship afloat. Most of these SCDEs are not currently involved in KPU activities and surely will not venture into this arena at this time.

Those SCDEs which are KPU-involved currently face a more difficult series of choices. They too will attempt to reduce the cost in instruction but their portfolio of KPU investments will not be reappraised easily. With KU being emphasized at the Federal level, there will certainly be efforts to tap this funding source. Since many of these programs will be funded in or through state and local education agencies, it is reasonable to suppose that more field involvements for both KU and training purposes will be initiated.

But while the upcoming period will be a difficult one for SCDEs generally, the term recession was used intentionally rather than depression to reflect the general sense that while momentum will be slowed and decrements in quantity and quality may be inescapable, dramatic or radical changes for the worse are unlikely to occur. There are a number of observations that support this proposition:

+ The contextual factors which inhere in IHEs and SCDEs may sometimes be viewed as depressants to needed positive change, but they are simultaneously prudential factors buffering the organization from precipitous, destructive changes. These factors will serve to offset some of the external factors impinging upon the SCDE.

+ A reasonable view of the recession is that it is a cycle in the history of SCDEs which has been experienced before and will be again. For example, if the external factors inventoried earlier in this chapter had been surveyed in the middle 60's, an entirely different and much more positive picture would have emerged; future predictions of that time would hardly have encompassed the sober reality of 1976. But while the cyclical nature of boom and recession is true in an historical sense, the existence of cycles should not be taken as a reason for inadequate short-range planning. Too many SCDEs have for the past several years been treating each annual budget as an "exception;" hoping to survive to the next, "better," year. The recession will be of sufficient duration so that yearly survival plans will miss the opportunities to avoid the worst consequences of general decrements in institutional resources.

+ All businesses and individuals do not suffer equally during a period of recession. An individual SCDE may not be able to reverse the general recession but it can influence its own state of well-being during the recession period. There are already SCDEs that have responded positively and are "swimming against the current" with reasonable success.

+ The problems confronted by SCDEs are not isolated from the situation confronting education generally. The conditions impacting upon the future for SCDEs described in this document are influencing other educational agencies. The tendency at such a time is for each agency to battle its competitors to the death for limited and inadequate resources. This is a self-destructive strategy for education as a whole.

+ The nearly 34,000 faculty members working in SCDEs represent a powerful and necessary intellectual force in American education. If teacher centers, for example, are to be other than routine appendages to LEAs, it will be because SCDE faculty turn their attention to making them succeed. The quality of KP and KU activities in education rests finally and most importantly on ideas, and ideas have been and undoubtedly will continue to be the most important product of the SCDE. Survival is not the question at hand; protection of quality during the recession period is the cogent question.

+ Recessions are not inevitable. Interventions can be mounted at the national and state levels to reverse the present trends. In fact, there are strong arguments to support the proposition that such interventions would be wise and effective governmental policy although it does not seem at this moment to be likely Federal policy in education.

Near-Future Effects in SCDEs

The external impact factors inventoried earlier in the chapter and the derivative predictions outlined in the preceding section will be felt to some extent and in some form in every SCDE in the country. Likely differential effects by SCDE type will be discussed in the next section of the paper. The intent in this section is to view the near-future in a generalized format from within the SCDE, i.e., in terms of the people involved, administrators, faculty, and students, and some predictable organizational responses which can be anticipated in most SCDEs.

Administrators

Line administrators in SCDEs, deans and chairpersons, will confront (are already confronting in most units) a new set of problems provoked by the stabilization of enrollments and budget. The basic job orientation in such positions has moved from expansion and improvement to retrenchment and maintenance of standards. The strategies of change in an affluent organization will not be available to tomorrow's SCDE administrator. His/her decisions will focus not on what to build or add to achieve maximum effect but what to cut back to minimize losses. No longer can the administrator "flood" the weak unit with additional personnel to overcome weaknesses or establish an additional unit to take on new functions. The important point to be made, however, is not rooted in the tactics that can or cannot be employed but in the general strategic approach that will be necessary to optimize organizational progress in the face of stable or declining resources. Administrators trained during a period of expansion and affluence, who experienced early success in their administrative careers functioning in such an environment, may find it exceedingly difficult to adjust to the new behaviors demanded in the role.

The administrative role is, of course, changing in other important although perhaps less pervasive ways, to wit:

* The number of contacts required with diverse interest groups concerned with SCDE activities is increasing markedly, i.e., with LEAs, SEAs, teacher associations, professor associations, students, minority group representatives, and others.

* In common with most other administrators in education, the dean or chairperson is faced with more formal relationships with both faculty and students as militancy increases, resources are in short supply, and legalistic protection of rights is increasingly emphasized.

* The maintenance aspects of the role are increasing as concern spreads for documentation of almost all fiscal and personnel decisions ranging from the processes of recruitment through salary equity.

* In an affective sense, the role may be less satisfying as the discrepancy between the expectations held by various client groups for SCDE performance and the diminished resources available to respond to those expectations grows.

* Satisfactions associated with the role may become more subtle than they once were. The dean can hardly point to obvious quantitative measures, such as new buildings, more budget, more faculty, more students, as outward manifestations of success. The administrator and his colleagues may have to turn to differences between stabilized program quality and negatives that "might have been" to assess on-the-job achievement.

Faculty

Surely there will be fewer faculty positions available in SCDEs in the foreseeable future, leading to less turnover and mobility among faculty, a higher percentage of faculty in senior ranks and on tenure, and a more visible concern on the part of faculty in protecting their positions and rights as employees. A situation very similar to that noted for SCDE administrators will also be true for faculty. They, too, will suffer withdrawal symptoms from the period of growth and affluence when their new ideas were frequently applauded, fostered, and supported by their colleagues and by administrators. They too will have to seek satisfaction in less visible activities than was the case in the past.

There are several role conflicts likely to arise with which faculty must be prepared to cope:

* The declining size of faculties will probably result in higher expectations for teaching load at the same time that the institution is attempting to initiate KU activities, involvements with teacher centers, and other in-service activities to replenish its declining market.

* Younger faculty (non-tenured) can anticipate more rigid promotion and tenure criteria being employed while time available for R & D activity and writing is reduced and the press for KU activities, not usually well recognized in IHE reward systems, increases.

* In many institutions, the press for retraining in specialization areas of low supply, e.g., special education, bi-lingual education, is likely to be strong in an environment not attuned to in-service education for faculty.

* The emergence of more militant association of professors designed to protect professorial rights and privileges will conflict with the idiographic, collegial tradition of most IHEs.

Students

Predicted effects on students are more difficult to assess. On the one hand they will become a cherished commodity in an institution bound to instructional headcount budgeting. A number of SCDEs have recently discovered recruitment as an institutional function as if it were an invention. From the students' vantage point, then, they can expect to be courted by the institution in a variety of ways including lowered entrance requirements and softened program requirements, but not including methods that increase expenditures by the institution, e.g., scholarships, assistantships, fee waivers. They can anticipate more routinization in basic courses to reduce the cost of instruction and fewer conventional program options, but, conversely, some increase in options in programs designed for non-educational settings or specialized programs in education in fields of undersupply.

In fact, impacts on students may be quite different across degree levels, i.e.:

* Undergraduate students may find SCDEs attempting to attract them to programs of training outside conventional certification areas. They may find more responsiveness on the part of faculty and administrators to their suggestions for program improvement. They will assuredly find a curtailed job market awaiting them at the conclusion of their training.

* In-service, masters level students may be the most advantaged student group. They should find the SCDE flexible in its entrance and program requirements; responsive to requests for field-oriented or field-based instruction; and anxious to respond effectively to client demands. Since they are already placed in jobs, this student group will be less concerned with the diminished job market. Its impact on them will be felt primarily in lessened mobility.

* Doctoral students will in all probability be least advantaged. The job market for doctoral degree holders will be dwindling. Financial support through assistantships and fellowships will decrease. The cost of advanced graduate level instruction is high and corners are likely to be trimmed. But the part-time doctoral student may find the SCDE more flexible in fitting its program requirements to full or part time employment.

Organizational Responses

Enough is known about the reaction of organizations to "hard times" to offer some predictions about likely organizational postures and responses that will be assumed in SCDEs:

* Conservatism--risk behavior is unlikely; laying out and protecting domains is predictable: passing up opportunities which involve the assumption of future commitments is probable.

* Reactivity--SCDEs can be expected to be on the defensive rather than the offensive; proactive responses will be difficult to generate and sustain.

* Closedness--superordinate administrators in the IHE and other academic units can expect a reluctance on the part of subordinates to be open in negotiations and/or in sharing information; the necessary negotiations with external agencies also involved in teacher education and educational KPU will be conducted guardedly.

* Localism--a greater tendency will be shown to reward nomothetic responses; the cosmopolite professor will be less honored and influential.

* Dysfunctional Responses--the tension generated by problems without resources for solution will be resolved by ritual non-solutions that offer the appearance of positive action without solving or frequently even confronting the problem.

* Problem Transfer--there will be a strong tendency for partners in the

SCDE enterprise to pass problems back and forth and to find scapegoats to explain why hard times are harder than easy times.

* Problem Displacement--since many centrally important problems needing attention will seem not handleable with extant resources, the focus will be diverted to less central problems to which solutions can be found.

* Isolationism--there will be a tendency for SCDEs to withdraw from inter-departmental and inter-school contacts as the IHE appears through its resource allocation decisions to place less value on the products of the SCDE.

* Mediocrity--a significant reduction will occur in whatever margin of excellence has been available to the SCDE. No longer able to support unique or innovative efforts the SCDE, in administering retrenchment cuts "fairly," i.e., evenly, across all units, will create its own "margin of mediocrity."

Likely Near-Future Scenarios for SCDEs

As the reader of earlier papers in this series will recall, the data and findings of the study, as well as the current scenarios reported in Chapter VI, are cast in terms of twelve institutional types. Three variables were employed in constructing the types: degree level in education (doctoral, masters, baccalaureate) institutional control (public, private); and likely involvement in educational KPU (more likely, less likely). The reader is referred to Appendix C and to pages 1-3 of Chapter III for a full explication of these definitions of SCDE types. For present purposes, however, it is sufficient to note that the types are defined as in Table VIII-1. Each of the categories A through F displayed in that table was divided into public and private classes to create the full 12-category system.

The remainder of this section is devoted to seven tables which provide projections of the current scenarios presented in Chapter VI. Categories

TABLE VIII-1

DEFINITION OF BASIC INSTITUTIONAL TYPES

Degree Level	Predicted KPU Involvement	
	More Likely	Less Likely
Doctoral	A	B
Masters	C	D
Baccalaureate	E	F

A, B, and C, with appropriate breakdowns into public and private subcategories, comprise the substance of the first six tables; the seventh table is a composite judgment for categories D, E, and F to correspond with the single Chapter VI current scenario written for these institutional types which are essentially uninvolved in KPU activities. Two points should be kept in mind in reading these tables: (1) notations are entered only for those items for which the near-future scenario is judged by the investigators to differ from the current scenario of Chapter VI, and (2) only changes directly or indirectly impacting KPU in SCDEs have been considered.

TABLE VIII-2

NEAR-FUTURE SCENARIO FOR "A-PUBLIC" SCDEs

Area	Anticipated Change
Demography	Decline in the number of institutions classifiable in this high KPU productivity category; fewer leadership institutions. Bottoming-out of the decline in undergraduate enrollments; further declines at masters level (because of emergent competitive agencies) and at doctoral level (because of market, declining student support). Negative effect on KPU productivity because graduate students, as graduate assistants or as individuals, are always part of the research enterprise in an institution.

(Continued)

TABLE VIII-2, Continued

Area	Anticipated Change
	Decline in number of faculty positions; effect on KPU both because there will be fewer persons to carry on such activities and because the persons most likely to be eliminated will be the younger, more recently trained individuals.
	Decline in number of graduate assistants; in addition to effects noted under enrollment declines above, will mean less available support for KPU activity.
	Increase in number of faculty at senior ranks and/or on tenure; staffing inflexibility reduces probability that new ideas will be explored or opportunities exploited.
Mission	Further reinforcement of instruction as the primary mission area, with concomitant proportional reductions in time and resources available for deployment for KPU.
	Some decline in KP emphasis, and shift from basic research to applied research paralleling emergent Federal level interest and funding in support of dissemination activity.
	Some increase in KU emphasis, but the conflict with traditional promotion/tenure requirements emphasizing research and scholarly productivity will deter more dramatic increases.
Organizational Arrangements	Change in nature of KPU bureaus from monolithic, multipurpose units (which SCDEs can no longer afford) to *ad hoc*, fiscally opportunistic units. Drop in support from regular SCDE funds; bureaus will have to be largely self-supporting.
	Decrease in support mechanisms which place direct drains on the institutional budget, e.g., SCDE discretionary funds for KPU, seed grants, travel funds, overhead return. Heavier reliance on mechanisms which require only administrative moves within the SCDE budget, e.g., *ad hoc* load adjustments which can be effected by increasing the teaching load of other faculty members.
	Stiffening of promotion/tenure criteria to place heavier emphasis on research and scholarly productivity; resulting conflict with emergent KU emphasis.

(Continued)

TABLE VIII-2, Concluded

Area	Anticipated Change
	Increase in linkages with extra-SCDE agencies in support of emergent KU activities and especially to offset emergent teacher education competitors, e.g., teacher centers. Resulting positive effects on KU activity.
Productivity	Stable to slightly declining KP productivity, as a function of decreases in faculty size and reductions in available funding.
	Slight increases in KU productivity; the "A-Public" institutions are able to respond to new opportunities in this arena but even so, not much new activity will occur since new external funds are primarily targeted to other institutions and reduced resources internal to the SCDE will limit available risk capital for new ventures.
	Decline in grants and contracts from external agencies, especially the Federal government, for KP purposes. Serious effects on KP in view of heavy dependence on these funds to support KP by the "A-Public" institutions.

TABLE VIII-3

NEAR-FUTURE SCENARIO FOR "A-PRIVATE" SCDEs

Area	Anticipated Change
Demography	Decline in the number of institutions classifiable in this high KPU productivity category; fewer KPU leadership institutions.
	Bottoming-out of the decline in undergraduate enrollments; declines at masters and doctoral levels. Effects as noted in Table VIII-2.
	Decline in number of faculty positions.[1] Effects as noted in Table VIII-2.
	Decline in number of graduate assistants, proportionately greater than in "A-Public" counterparts, because of greater dependence in these institutions on tuition income. Effects as in Table VIII-2.
	Increase in number of faculty at senior ranks and/or on tenure. Effects as in Table VIII-2.

(Continued)

TABLE VIII-3, Concluded

Area	Anticipated Change
Mission	Little change in instructional mission emphasis, placing these institutions at a disadvantage in competing for students. Reduced tuition income producing proportional cutbacks in SCDE investments in KPU.
	Some decline in KP emphasis, and shift from basic research to applied research paralleling emergent Federal level interest and funding in support of dissemination activity.[1]
	Some increase in KU emphasis, but the conflict with traditional promotion/tenure requirements emphasizing research and scholarly productivity will deter more dramatic increases.[1]
Organizational Arrangements	Change in nature of bureaus as noted in Table VII-2, with similar consequences.
	Decrease in support mechanisms which place direct drains on the institutional budget; crucial since these institutions rely heavily on this type of support for stimulation of KPU.
	Increase in linkages with extra-SCDE agencies in support of emergent KU activities and especially to offset emergent teacher education competitors, e.g., teacher centers. Resulting positive effects on KU activity.[1]
Productivity	Proportional loss of position to "A" and "B" Public institutions with respect to KU.
	Decline in grants and contracts, but proportionately less than in public counterpart institutions, since the majority of soft money accrues from private foundations.

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[1] These generalizations are made despite the existence within the "A-Private" category of a small number of institutions which are heavily supported by endowment funds and hence are less likely to be adversely affected by fiscal and market factors. These institutions are likely to lose fewer faculty positions, to re-affirm their traditional KP emphases, to show continuing disinterest in KU, and to have little interest in developing external linkages. But these SCDEs are the exception for the category not the rule.

TABLE VIII-4

NEAR-FUTURE SCENARIO FOR "B-PUBLIC" SCDEs

Area	Anticipated Change
Demography	Small increase in number of institutions in this category as a result of attrition from the "A-Public" group.
	Bottoming-out of the decline in undergraduate enrollments; significant declines at masters and doctoral levels. Latter decline proportionately higher than in "A-Public" counterparts; students electing to attend doctoral level institutions will tend to select SCDEs whose greater involvement in research lends higher national prestige.
	Decline in number of faculty positions, proportionately higher than in the "A-Public" category since budget is more directly tied to tuition and appropriations (less soft money).
	Decline in number of graduate assistants, but with less effect on KPU than for "A" level institutions because these graduate assistants tend to be teaching rather than research assistants.
	Increase in number of faculty at senior ranks and/or on tenure. Effects as noted in Table VIII-2.
Mission	Marked increase in instructional emphasis; the masters level training mission is of major importance in these institutions; consequently they will gear up to meet the challenge of emergent in-service training agencies.
	Significant increase in KU activity, which will seem to be a "natural" mission for these institutions to complement their increasing concern with field-based, in-service instructional programs.
	Concomitant decrease in KP activity as resources are allocated primarily in support of missions noted above.
Organizational Arrangements	Change in bureaus as noted in Table VIII-2; emergence of additional KPU units to exploit funding opportunities. Emphasis on KU rather than KP bureaus.
	Increase in emphasis on research and scholarly productivity in promotion/tenure decisions; exacerbation of existing conflict for faculty who devote most energies elsewhere and promotion of new conflicts for faculty attempting to be responsive to KU emphasis.

(Continued)

TABLE VIII-4, Concluded

Area	Anticipated Change
	Increase in extra-SCDE linkages to tap into external in-service training activities as much as possible and to be KU-responsive.
Productivity	Increase in KU productivity, but not as much as institutions would like since funds are primarily targeted elsewhere.
	Reduction in external grants and contracts. Deleterious effects on KP but less than "A-Publics" since these institutions have attracted less support in the past.

TABLE VIII-5

NEAR-FUTURE SCENARIO FOR "B-PRIVATE" SCDEs

Area	Anticipated Change
Demography	Small increase in number of institutions in this category as a result of attrition from "A-Private" group.
	Declines in enrollment across all degree levels. "B-Private" institutions will be more susceptible to enrollment declines than any other category of doctoral institution, since they must cope with all fiscal and market factors to which others are exposed and, in addition, must do so under the handicap of heavy tuition which most potential students will find unattractive in these less prestigeful institutions. Effects as noted in Table VIII-4.
	Decline in number of faculty positions, proportionately greater than in "B-Public" counterparts because of greater dependence on tuition income. Effects as noted in Table VIII-4.
	Decline in number of graduate assistants, proportionately greater than in "B-Public" groups because of dependence on tuition. Effects as noted in Table VIII-4.
	Increase in number of faculty at senior ranks and/or on tenure. Effects as noted in Table VIII-2.
Mission	Marked increase in instructional emphasis to compete for masters level in-service market.

(Continued)

TABLE VIII-5, Concluded

Area	Anticipated Change
	Some increase in KU interest but not as much as in "B-Public" group; inhibited by inclination of "B-Privates" to emulate their "A-Private" exemplars; loss of relative competitive position in relation to emerging KU interests and funding.
	Small decline in KP interest; the existing press in some of these institutions to "move up" to the "A-Private" level by emulating KP productivity will be forestalled by the difficult survival problems confronting this type of institution.
Organizational Arrangements	Emergence of opportunistic, ad hoc bureaus.
	Emergence of some extra-SCDE linkages to support interest in in-service instructional market.
Productivity	Some decrease in both KP and KU productivity.
	Some reduction in external grants and contracts, but not as much as for the "B-Public" counterparts since most soft money comes from private foundations. Impact lessened by the fact that these institutions have attracted less support in the past.

TABLE VIII-6

NEAR-FUTURE SCENARIO FOR "C-PUBLIC" SCDEs

Area	Anticipated Change
Demography	Bottoming-out of decline in undergraduate enrollment, significant declines in masters level enrollment as competitive training agencies emerge.
	Decline in number of faculty positions. Increase in number of faculty at senior ranks and/or on tenure, and increase in faculty experience level.
Mission	Much heavier emphasis on instructional mission as competitors for in-service training programs emerge.
	Heavier emphasis on KU, partly as a tactic to assist in meeting the competitive challenge in in-service instruction

(Continued)

7

TABLE VIII-6, Concluded

Area	Anticipated Change
	and partly to take advantage of new KU funding. Introduction of potential conflict with entrepreneurial faculty who have been accustomed to providing consulting service for a fee.
	Virtual abandonment of interest in KP except as individual professors may feel compelled to participate in order to meet promotion/tenure requirements.
Organizational Arrangements	Increasing emphasis on research and scholarly productivity as basis for making promotion/tenure decisions. Increase in dissonance felt by faculty between activity and reward emphases.
	Emergence of a variety of extra-SCDE linkages to support in-service training and KU components.
Productivity	Slight increase in KU productivity but not as much as institutional administrators would like; constraints because most in-service training and KU funds will be directed elsewhere.

TABLE VIII-7

NEAR-FUTURE SCENARIO FOR "C-PRIVATE" SCDEs

Area	Anticipated Change
Demography	Bottoming-out of undergraduate enrollment; significant declines in masters level enrollment as competitive training agencies emerge. These institutions will experience the masters level enrollment decline more sharply than the "C-Publics" because of their higher tuition costs.
	Decline in number of faculty positions, increase in number of faculty at senior ranks and/or on tenure, and increase in faculty experience level.
Mission	Some increase in emphasis on instructional mission in an attempt to compete with emergent in-service teacher education agencies.

(Continued)

TABLE VIII-7, Concluded

Area	Anticipated Change
	Some increase in KU emphasis, as in VIII-6.
Organizational Arrangements	As in VIII-6.
Productivity	Essentially unchanged since they are not currently heavily engaged in KPU activity.

TABLE VIII-8

NEAR-FUTURE SCENARIO FOR "D," "E," AND "F" SCDEs

Area	Anticipated Change
Demography	Essentially similar to other types: bottoming-out of undergraduate enrollments, marked declines in masters level enrollments (for "D" type institutions), decline in number of faculty positions, increase in number of faculty at senior ranks and/or on tenure, and increase in faculty experience level, all with virtually no impact on KPU productivity because of its relatively low level in these institutions.
Mission	Much heavier emphasis on instruction; virtually no interest in either KP or KU.
Organizational Arrangements	Stiffened criteria for promotion and tenure, causing faculty conflicts because of their present low productivity but not really influencing them to increase their efforts.
Productivity	Unchanged.

Issues for Planners in Teacher Education

The likely near-future for SCDEs portrayed from several perspectives in earlier sections of this chapter were based not only on the analysis of contextual and external impact factors but on best guesses about the reaction which various planners and decision-makers will have to those factors, i.e., the policy and program decisions these influentials are apt to make faced with the confluence of factors confronting them. These predicted decisions are, of course, not inevitable, nor, in the opinion of the investigators, always in the best public interest. From the point of view of someone trying to project some sense of what the future will be like, they do have one intractable characteristic, however, and that is, they are contingent upon other decisions made at superordinate levels. So for example, decisions made at the national level are binding upon, or at least reduce the degrees of freedom of, IHE and SCDE administrators, while SCDE administrators must further cope with decisions made by IHE superordinates either independently or in reaction to national decisions. Conversely, SCDE faculty and administrators cannot unilaterally initiate policies or programs of sufficient breadth or scope to forestall the predicted recession. They could individually and collectively exhort national level decision-makers to pursue such policies but policy options at the SCDE level are influenced and constrained by the resolution of policy issues at superordinate levels.

The intent of this section is to explicate a range of policy issues confronting decision-makers at the several levels. Since it would be impossibly complex to pursue the chain of contingencies that might arise if policy decisions were made which are not predicted at superordinate levels, the policy issues for IHE and SCDE administrators are posed as if decisions were made at the national level as predicted. The reader will note, for example, that the policy issues for SCDE personnel reflect decisions which they will need to confront if national level decision-makers do not intervene in some way to blunt the predicted recession, since such intervention now seems unlikely.

The investigators have also eliminated from the listing that follows hypothetical policy issues or decision choices that seem to be remote possibilities in light of the near-future context of teacher education in the United States, e.g., the elimination of SCDEs as the basic unit for training in the education professions, or institutional formula grants by the Federal government to support the education of teachers. The issues noted are intended to be real options that should be debated and resolved by those responsible for influencing the direction of the education professions.

National Level Planners

1. The cornerstone of Federal policy: quality improvement vs. resolution of manpower shortages. The history of Federal involvement in training in the education professions leaves little doubt that the supply and demand of educational professionals has been and continues to be the raison d'etre for Federal involvement in the field. EPDA became unnecessary precisely because significant manpower shortages no longer existed. The remnants of EPDA which provide possible sources of support to SCDEs are centered in fields of continuing personnel shortage, e.g., special education, vocational education, teachers for culturally different students. Programs of qualitative improvement in teacher education under NDEA, EPDA, or the special interest segments of teacher education legislation have always been tangential to the central issue of personnel supply, often bootlegged in or tacked on to a supply issue which was the real focus of the legislative thrust.

The predictable recession for the immediate future joins the issue of what the cornerstone of Federal policy should be in relation to SCDEs and their role in training for the education professions. If the Federal government pursues its past policies, the recession is inevitable, for programs predicated on manpower shortages or supply and demand issues will have little payoff for SCDEs in this period of sharp market decline. There is also a "Catch-22" element in a decision to continue to base decisions on manpower considerations: the recession which will be fueled by this decision will increase the dissatisfaction with SCDE performance and stimulate interest in transferring responsibility for training to competitor agencies and settings, as attested by the teacher center legislation of 1976.

The option, of course, is that the Federal government may elect to intervene by manifesting concern for qualitative improvement in the education of teachers and other specialists for schools in and through SCDEs. Is it politically feasible for executive agencies such as NIE and OE, as well as for the Congress, to make investments in SCDEs in view of the likely pressure from almost all other education agencies, including LEAs, SEAs, and teacher professional associations, to move in other directions? Can a period which has promise of high likely success for improvement, since the press for simply processing hundreds of thousands of trainees per year by SCDEs is substantially reduced, be properly exploited? Can programs be mounted in education which emulate the successful programs by NSF and NIH to qualitatively improve programs in their respective areas of concern? These seem to be the major questions that beg for answers in any consideration of what the character of the Federal program impinging upon SCDEs should be.

2. The Federal government and KP policy: the SCDE as a primary educational KP resource vs. the SCDE as one among many KP competitors. Federal involvement in the support of educational KP over the past two decades has run the gamut from an extremely idiographic to an extremely nomothetic position. Original support programs under P.L. 531--the Cooperative Research Act--emphasized the SCDE as the locus for research and concentrated heavily on supporting field initiated studies. More recently, Federal programs have emphasized centrally planned research endeavors, with SCDEs together with a variety of other agencies being viewed simply as competitive contractors to

carry out the specified activity. The latter position arrogates to the Federal government the primary responsibility for determining what is to be done and in what way, and thereby fails to capitalize on the creativity or motivation, not only of SCDEs, but other relevant agencies.

The basic issue confronting the Federal government in this area seems to be whether it can view each of the involved agencies as potential resources that have unique and useful contributions to make, rather than merely as agencies to be directed toward some pre-specified end. Surely no one would argue that SCDEs should be viewed as the educational KP agency. The educationist community is beyond the naive days of P.L. 531 during which SCDEs were regarded as the primary fount of knowledge. But SCDEs are more than mere R & D contractors. Can NIE broaden its interest in capacity building to include SCDEs in some meaningful way? Can Federal policy be broadened to encourage each agency in the community of educational KP to make its maximum contribution? Is it politically feasible for the government to develop policies that are more stimulatory than directive: at the same time, can these policies be devised in ways that will focus the attention of the involved agencies on issues of national prominence and significance? Positive answers to these questions would ameliorate a number of dimensions of the predicted recession in a subset of perhaps five to 10 per cent of the country's SCDEs.

3. The Federal government and KU policy: the resource/competitor issue and the issue of KP-KU balance. The Federal concern for knowledge utilization or dissemination in education raises two cogent policy questions affecting SCDEs. The first is parallel to the issue just explicated in respect to KP. SCDEs have involved themselves vigorously in the past in KP functions, ranging from institutionalized service bureaus to individual faculty entrepreneurship in ad hoc consulting. As the Federal interest in dissemination grows, SCDEs may again be viewed simply as KU contractors or as a major

resource whose KU capacity is to be developed. The number of SCDEs impacted by this decision would be substantially larger than in the case of KP policy since masters level institutions have been more heavily involved in KU activities and, even where less involved, are natural potential centers for KU activity. The resolution of this issue is of special concern at this point in the history of SCDEs since KU involvements are expensive in staff time and other real costs and the cost effectiveness of locally generated involvement in KU will be highly suspect in a period of rising costs and falling income.

The issue of KP-KU balance arises as the government increases its interest and expenditures for KU. Knowledge utilization activities assume at least some continuing growth in the knowledge base, but that growth is not possible without continued attention. Yet KP and KU programs tend to be funded from the same finite body of funds; an increase in one implies a decrease in the other. It seems clear at this juncture that KU has been largely ignored in the past. But should the efforts to redress the balance in favor of KU be permitted to become an over-reaction? Is it wise, prudent, or necessary to discontinue investments in KP so as to make more rapid strides in KU possible? If KU ultimately depends upon the store of knowledge available, will not an overstress on KU terminate in a massive mechanism for dissemination that has nothing worthwhile to disseminate? The time to plan for this contingency is now, and not when the paucity of useful knowledge is painfully apparent. If it seems unlikely that a properly balanced KPU program can be mounted given the present funding available, the government must determine whether educational improvement is in fact possible without increased support.

4. New agencies--old agencies: betting on proven but limited perform-

ance vs. untested but possibly outstanding effectiveness. Permeating all three of the previous sub-sections is a continuing dilemma confronted by both the Federal government and private foundations in supporting educational improvement ventures. Established agencies, whatever their level of performance, have already demonstrated beyond a shadow of doubt that they cannot and will not perform miracles in solving nagging social problems. New agencies have yet to demonstrate that characteristic. As national level planners search for optimal locations for investment of limited funds they consistently confront the question of settling in advance for proven but limited performance against possibly unlimited gains through unproven agencies. Can LEA-based teacher centers revolutionize the in-service development of teachers? Or would the change agent be better off to increase support for in-service activities in SCDEs where a cadre of trainers has worked on that problem for years? Is it really true that "the university can't train teachers" or are there interventions that would alter their performance markedly? Is the SCDE an agency worth increased KP or KU investments or would the field be (or has it been) improved markedly by the investments in laboratories and centers? Now that laboratories and centers have established the fact that they generate products, not miracles, would it be more useful to invest in intermediate service agencies?

As long standing participants in instruction, KP, and KU in education, the future of SCDEs is likely to be influenced sharply by the position(s) assumed by national level change agents on this dilemma.

5. Private foundations and private IHEs: the foundation as an offset to Federal policies. Private foundation grants to SCDEs have been concentrated on, although not restricted to, private doctoral level institutions. They have become involved in the support of qualitative experiments in teacher education, although their primary interest has seemed to center on KU

involvements, especially efforts of SCDEs to work effectively to solve operating problems in schools. The policy issues confronting planners in private foundations overlap with many of those already identified for governmental planners since the foundations, too, assume a national view on many of their grant program activities. At this point in time, the central dilemma for the private foundations may be posed by action or inaction on the part of governmental policy planners. If the Federal government makes no move to intervene in the predicted recession for SCDEs, private foundations will be in the position of assessing the impact of the recession especially upon private colleges and universities, which will be in an even less favorable competitive position than their public counterparts because of their necessarily high tuition charges.

The possible consequences of the recession cut across all types of SCDEs and the full range of SCDE missions, e.g., in many private baccalaureate institutions, significant diminution of teacher education enrollments threatens the fiscal stability of the IHE, while at the other extreme the private research center institutions rely heavily on the foundations in retaining their margin of excellence as centers of experimentation and intellectual leadership in American education. The upcoming period is a critical one for many of the IHEs/SCDEs that have historically assumed that private foundations held their interests as high priority concerns. In a broader sense, the private foundation planner may be in substantial disagreement with governmental policy relating to SCDEs and may face the problem of whether the disagreement is of sufficient magnitude to justify allocating significant resources to maintain or build capacity in these units. Will foundations rise to these challenges? Will they be able, any more than the government, to justify investments in units that appear to be less viable and responsive than in the past? Will the foundations be able to overcome their traditional reluctance to act as complements to governmental policy, or to fill gaps created by governmental policies?

6. Conceptions of complementarity: systems vs. configurations. National level planners, for obvious reasons, have long been enamored of investments in education which hold the promise of establishing and maintaining a system for educational improvement in the United States. The concept that various extant or new agencies can be assigned roles in KPU in education and function within those roles to complement one another in effecting positive change in education, e.g., the concept of a national network of educational laboratories, has controlled governmental policy at times in the past and may well do so again in the future. The willingness to support educational agencies as if they were elements in a configuration (sometimes complementary, sometimes competitive, often overlapping) has not been a popular planning posture.[1] If teacher centers or extension (linking) agents or any other devices are viewed as a new system for educational improvement (inside or without SCDEs; with or without their participation), the effects on the various sub-groups of SCDEs would be marked. Can the government cast off its view of a national system of educational improvement, with itself as center, and move instead to a conception of a community or configuration of agencies, each with its own interests and motivations and abilities that must be coopted rather than directed? Can the capitalistic economic model be successfully adapted to educational KPU, so that enlightened self-interest rather than government assessment of problems is the essential dynamic leading to complementarity?

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[1] For a more detailed explication of this issue see: Egon G. Guba and David L. Clark, The Configurational Perspective: A View of Educational Knowledge Production and Utilization (Washington, D.C.: Council for Educational Development and Research, 1974).

7. Quality control: aggressiveness in establishing and maintaining standards vs. uncontrolled development. As noted in several papers in this series, the current quality control mechanisms in teacher education are malfunctioning. The Federal government and a wide variety of national level professional groups concerned with teacher education are faced with a series of policy dilemmas in regard to this problem. What are the responsibilities of the various agencies? Is this an appropriate or an inappropriate time to press for the maintenance of minimal standards? At what level, national, state, local? To what extent should such standards be tied to support efforts and programs at the national level? To what degree should quality control be profession-controlled, government-controlled, SCDE controlled? Should standards be devised to cover only programs of SCDEs, or should the programs being mounted by competitive agencies, e.g., teacher centers, also be included?

8. The teaching profession and the SCDE: competition or partnership. A particular national issue revolves around teacher education and the organized teaching profession. SCDEs individually and collectively represent an undeniably significant resource (especially in KP as noted in Chapter V) for the overall educational enterprise of the country. At the same time, SCDEs are competitors for funds with local school districts, and have been frequently ignored, or even been labeled as adversaries, in general educational policies espoused by the organized teaching profession.

SCDEs are vulnerable targets at this point in their history and the posture of the profession toward them over the next four years may be influential in their long range development. Support or opposition toward SCDE involvement in teacher centers, proposed KU ventures, and KP may determine not only the future strength and vigor of the SCDE, on the one hand, but the target programs themselves on the other. LEAs may be hard pressed to generate effective teacher centers without SCDEs but may be the only viable agency for doing so if national level planners for the profession decide that issues of control and/or teacher autonomy supersede issues of substantive concern in in-service development. Will it be politically possible for professional associations of practitioners then to recognize the positive resource inherent in SCDEs for teacher training? Will current market conditions so threaten teachers that, through their national associations, they will make every effort to gain control of entry into the profession by relegating SCDEs to a minor role in the whole training picture? Can SCDEs and the teaching profession emerge as partners rather than as adversaries?

IHE Level Planners

1. Natural flow-intervention: "fairness" vs. "unfairness" in the internal treatment of SCDEs. The basic issue confronting IHE decision-makers concerned with the future of SCDEs on their campuses is the question of treating the SCDE "fairly" during the next few years or introducing differential and "unfair" advantages to the unit. The natural tendency of most IHE leaders will be to reduce allocations to the SCDE proportional to declines in graduate and undergraduate enrollments and reduced external funding. To assume a different posture would, in fact, fly in the face of the IHEs' system of "negotiated normalcy."[1] But to treat the SCDE unfairly would also tend to offset decrements in quality predicted earlier in this chapter, might increase the competitiveness of the SCDE in seeking both students and external grant and contract support. It is conceivable, just unlikely, that decrements in enrollment could be used to provide released time for SCDE faculty to pursue KPU interests, although the natural tendency will be to reduce faculty numbers to match the enrollment drops.

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[1] See Chapter VII, pp. 5-6, for a definition of this phenomenon.

While this issue may be confronted in dramatic form in some IHEs, i.e., should the SCDE be retained or dropped, in many more instances it will be observed in a more subtle context, i.e., how far will quality be allowed to fall or how important is it among IHE priorities to strive to maintain a distinguished SCDE? Will IHE administrators have the vision to see that one of the positive possibilities inhering in the adversity now confronting SCDEs is that of moving the SCDE from its present to a more favored state by the process of acting somewhat "unfairly" toward it? Will these administrators be able to withstand the political pressure which the "negotiated normalcy" of the campus will bring to bear in the interest of general "fairness?" When is it more sensible to be "unfair" than to be "fair?"

2. Venturing-conservatism: risk-taking vs. retrenchment in relation to SCDEs. The SCDE is obviously not the sum and substance of the IHE future planning problem. The entire IHE enterprise in confronted with a period of stabilization or mild recession; the position of the SCDE within the IHE is simply an aggravated instance of the overall problem of maintaining dynamism in a period of resource stability. The general situation for IHEs brings the IHE administrators and faculty squarely up against the issue of how much venturing is prudent or possible during such a period. Are future commitments imposed by current moves worth the candle? Could, for example, science development grant "futures" be honored if they were assumed in 1977? The general posture assumed on this question has to be particularly nagging when applied to an SCDE with dwindling enrollments. Will the SCDE be able to capture funds earmarked for KU involvements? Will the SCDE be able to work out a productive collaboration with its competitors in relation to teacher centers? Should any futures be staked on such possibilities? Would it influence enrollments in SCDEs and companion arts and science departments if an innovative

teacher education instructional program were undertaken or preserved? In many institutions the entire future of the SCDE may depend upon positive answers being given to such questions.

3. Quality control: traditional vs. emergent standards. The responsibility for the maintenance of quality must finally be laid at the door of the IHE administrator and faculty. Even granting the proposition that higher education departments are "loosely coupled units,"[1] there is institutional responsibility for determining a minimal quality level below which no unit will be allowed to fall. This responsibility not only provokes the issue of when an IHE should decide to drop or phase out a unit or to invest in the unit differentially to sustain a minimal acceptable quality level, but raises two other dilemmas for the IHE planner.

First, there is the question of how the basic reward system of the IHE can or should be manipulated to fit special demands imposed on such subunits. Promotion and tenure of faculty are considered by many IHE personnel to be specific instances in which the faculty as a whole exercises minimal quality control in relation to departments. If the growth markets for SCDEs lie in the direction of KU activities and in-service programs for practitioners, that growth also lies in the direction of conflict with traditional research-based reward systems, especially in doctoral level institutions. To what extent should the IHE respond to the growth potential by modifying classical standards for faculty performance to allow a department to create the strongest possible future for itself?

Second, in the broadest sense, the search for survival funds by the SCDE may well confront the IHE with the issue of whether the very activity to be pursued is appropriate to the university. When does attention to KU devolve into a "service-station" operation more appropriate to non-university agencies? When do responses to RFPs become, simply, piece-work rather than scholarly activity?

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[1] See Chapter VII, p. 6, for a definition of this phenomenon.

SCDE Level Planners

1. Natural flow-intervention: "fairness" vs. "unfairness" within the SCDE. The SCDE administrator is confronted with the same problem in microcosm posed for the IHE administrator in the preceding section, at least in those SCDEs large enough to maintain multiple departments and diverse programs. Is it a prudent or wise policy to administer proportional cuts to allow units to survive? Will such a policy of incrementalism simply lead to a "margin of mediocrity?" On the other hand, what criteria could or should be used for differential treatment of units? Should allocations follow growth patterns? And if they do, what will be the consequences of such decision-making in five or ten years? Will that simply result in a bulging faculty in areas which by that time are oversupplied?

2. Venturing-conservatism: risk-taking vs. retrenchment within the SCDE. Again, with narrowed degrees of freedom because the unit under consideration is smaller, the basic issue of assuming a venturesome or conservative posture toward the recession is the same for the SCDE faculty and administration as it was for the IHE level planners. Indeed, the question of whether this issue ever surfaces at the IHE level may be determined by whether it is confronted, resolved, and explicated for IHE planners by the SCDE administration and faculty.

3. Mission scope: perseverance vs. redefinition. The issues inherent in the definition of the scope of mission to be pursued by the SCDE are essentially irrelevant to many SCDEs in which the scope is currently narrow, i.e., the instruction of pre-service teachers. But for most graduate level institutions these issues are critical. Should masters level public and private

institutions attempt to extend what would seem to be "natural" advantages in relation to KU activities and field-based in-service programs? To what extent should doctoral level institutions plan to move in the KU arena? How would this affect (or should it be allowed to affect) the current KP-KU balance in these sites? To what extent dare doctoral level institutions withdraw from involvement in pre-service teacher education? Or continue to deploy funds from pre-service education to support KPU and advanced graduate study activities? Can or should the region of geographic influence be modified to conform to budgetary or staffing stringencies? Can or should the area of substantive concern be delimited or specialized? How much responsiveness to external problems can be tolerated before the institution is in danger of over-reaching itself in its mission definition?

4. Quality control: traditional vs. emergent standards within the SCDE. In the midst of the issues surrounding mission scope, the SCDE itself must confront the quality control questions raised for the IHE in the preceding section. How thin will the faculty allow itself to be spread to optimize income generating options? To what extent is the SCDE faculty willing to modify, or have the IHE modify, traditional promotion and tenure standards to fit new demands on SCDEs? When have new opportunities become activities inappropriate to the role of the university in society, and to the role of the SCDE within the university?

5. Competition, cooperation, and negotiation: brotherhood vs. survival. The SCDE has entered an era in which competitive agencies have emerged and will undoubtedly continue to grow. These agencies will not only challenge the authority of the SCDE in the governance of teacher education but will also question the pre-eminence of the SCDE in other traditional function areas. At a theoretical level, the question of competition vs. cooperation or nego-

tiation may seem to be a straw man. Who would advocate frontal competition vs. cooperation, or isolationism vs. negotiation? In the real world, however, these issues will not be straw men. Many SCDE observers would contend that the recent teacher center legislation was ill-conceived, badly drafted, and likely to result in outright failure if its program is not actively supported by SCDEs. But the anti-SCDE bias in the legislation is obvious. May it not be the case that pitching in to help the centers be what they could be would constitute abetting the creation of a possibly destructive competitor? May not isolation be the better part of valor?

Competitive agencies in KU and in-service education are currently employing SCDE faculty on a private consulting basis to carry out programs that could be handled within the SCDE. May continuing to allow this to happen without rigid safeguards not be cooperation beyond the call of duty? May not negotiation on the governance of teacher education with agents or agencies that hold objectives antithetical to the concept of university-based education for teachers be viewed as suicidal rather than rational?

As SCDEs move into a vulnerable recession period, the relative advantages of postures of openness, cooperation, and negotiation need to be considered issues to be resolved and not as self-evident propositions. In an era characterized by protectionism, can SCDEs afford to be any less on guard?

6. *Cost-effectiveness: sound vs. opportunistic investment*. In a more hard-headed manner than has often been the case in the past, SCDE planners will have to assess opportunities in which they might invest time and resources against the cost-effectiveness of the return on those investments. It is possible, for example, to redefine the scope of the SCDE so that it encompasses not only education *per se* but a variety of service or helping professions as well (the "College of Human Services" is already emerging); such a

move might open up new markets but might simultaneously impose non-cost effective instructional programs on the SCDE. Venturing out to join with other educational agencies in teacher centers or KU activities may very well be cost ineffective if the Federal government makes little or no provision to support the SCDE directly in these ventures. There are no instances in which either the IHE or the SCDE can take on direct cost reimbursement programs without suffering substantial indirect cost losses. The issue is obviously not whether to assess cost effectiveness but how to judge opportunities and investments against short and long term cost effectiveness. How can these opportunities be identified? What tradeoffs are involved in opting for one or another? How can adequate assessments be made of the likely payoff of any given option? What are, in a university setting, adequate criteria of costs, when there is no "bottom line" and when the product itself is ambiguous?

7. Balance: nomothetic vs. idiographic postures. Periods of resource shortages incline institutions toward nomothetic rather than idiographic positions. But an emphasis on the idiographic characterizes the essential context of the American university. Faculty and administrators in SCDEs will be confronted with the issue of bargaining off some portion of the autonomy and independence of the individual professor to meet the nagging challenge of planning institutionally to minimize the effects of the recession period. How far can an institution go in this direction without destroying the very virtue that accounts for its strength? What concessions are professors likely to be willing to make? Does the protectionism sought by many professors through unions in this period of recession represent its own form of nomotheticism that will, as resolutely as adamant IHE administrator demands, signal an end to faculty freedom?

Conclusions

The inventory of issues presented above is surely not a comprehensive assessment of the myriad of discrete issues which should be confronted explicitly by planners at various levels concerned with the near-future of SCDEs. But it is representative of the issues which too frequently are resolved by inaction and ignorance. Without in any way de-emphasizing the importance of the several issues just presented, the keystone issue at each level seems to be reflected in the following three questions:

For National Planners: Are SCDEs sufficiently important to the health of the entire educational enterprise to justify interventions to offset the effects of the predicted recession in teacher education?

For IHE Planners: Is the SCDE sufficiently important on campus to justify reverse discrimination in budgetary allocations to offset a portion of the decrement in quality predicted for the recession period?

For SCDE Planners: What explicit strategy can be adopted by the SCDE internally to minimize qualitative decrements during the recession period?

The resolution of these issues is not KPU-specific because they relate to the health of the SCDE as an organizational whole. That health determines the impact of the recession period on the maintenance or improvement of the SCDE as a viable unit in the configuration of educational agencies producing in KPU in education.

CHAPTER IX

ALTERNATIVE FUTURES FOR SCHOOLS, COLLEGES, AND DEPARTMENTS OF EDUCATION

Introduction

Earlier chapters in this Occasional Papers Series have provided a description of the current status of schools, colleges, and departments of education (SCDEs) on a variety of dimensions, particularly those related to knowledge production and utilization (KPU) activities; provided information about the actual KPU productivity of such education units; assessed the variety of new conditions and demands being made upon SCDEs and the internal or contextual factors that inhibit or facilitate responses by SCDEs to these conditions and demands; and described, for different types of SCDEs, the likely future that will emerge from the confluence of these circumstances. The picture of that future was neither reassuring nor promising.

But a likely or natural future is not necessarily the one that will occur. A variety of interventions are possible. This paper begins with the assumption that SCDEs possess and have demonstrated a substantial capacity for KPU in education that should be exploited in the near future (five to seven years). This assumption is grounded in the empirical data which the researchers gathered during the period of the RITE project, to wit:

- Organizational capability. There are in the United States 1,367 SCDEs with some potential for KPU; of these, 125 are currently identifiable as active to high producers and 24 are classifiable as KPU centers. Many of these SCDEs support bureaus, centers, or institutes which are engaged in KPU activity, and most have other locally supported organizational arrangements for KPU.
- Individual capacity. These 1,367 SCDEs employ a regular, full-time faculty component numbering almost 34,000 individuals. Without being elitist in orientation, it is fair to note that this human resource is in many ways elite. Not only are they highly trained (e.g., over 90 per cent of the faculty in doctoral level institutions and 75 per cent of those in masters level SCDEs hold the doctorate) but they were typically recruited competitively from among practitioners in education with outstanding records of success. They are a powerful human talent pool. And, they have been highly productive

as the major single source for new educational ideas and techniques (e.g., they author more than 56 per cent of the articles not only in leading educational research journals but in journals addressed to practitioners as well).

- Commitment. SCDEs exhibit commitment to KPU in terms of what they say, in terms of what they have done, and in terms of what they are doing. The 125 high producers uniformly accept a leadership position in KPU. Their bulletins, faculty handbooks, and other public policy documents claim KPU as an important mission. Moreover, SCDEs have traditionally engaged in KP as part of their scholarly role and in KU as part of their obligation to clients and patrons--witness laboratory schools, school study councils, bureaus of educational service, and the like. Even though KPU is a function complementary to teaching in colleges and universities, most of the doctoral level institutions contribute through released time 20 to 25 per cent of their personnel budgets to KPU activity. Despite the paucity of support for KPU in SCDEs noted earlier, there is no doubt that SCDEs have and do make a more visible and concrete contribution of resources to KPU than does any other operating educational agency.

- Aspiration. Whatever the current level of effort and productivity in SCDEs, administrators and faculties are in agreement that increases will occur over the next five to seven years. Faculty in particular anticipate major increases in personal time devoted to almost every KPU function. SCDE personnel want to be involved.

- Supportive environment. SCDEs are part of a larger university environment that represents society's best provision of a context for organized inquiry. Universities have the intellectual resources and the organizational posture needed to support the SCDE in the KPU arena.

- Complementary, relatively inexpensive labor pool. SCDEs are involved in advanced graduate training and have ready access to graduate students who need and want internship and apprenticeship opportunities relating to KPU. The services which these talented persons provide could not be duplicated on the open market for less than double or triple the cost which SCDEs incur to employ them.

SCDEs, in common with all the established institutions of our society, exist with a mix of strengths and weaknesses. They are, however, a demonstrably significant institution with respect to R and D and dissemination; they could not be replaced in the configuration of agencies concerned with KPU without the investment of wholly unrealistic levels of Federal funding. This paper rests on the proposition that Federal intervention to build upon rather than to replace the KPU capacity of schools of education would represent a desirable social and educational policy in the United States.

Specifically, the paper will:

1. Develop a framework for analyzing SCDE futures in KPU and Federal interventions which might affect those futures.
2. Review critical KPU-related characteristics of SCDEs which would affect the success or failure of proposed Federal interventions.
3. Assess the interaction of the interventions with the critical characteristics, i.e., estimate the appropriateness and impact of an intervention.
4. Recommend selected priority programs: those that seem to be achieveable and responsive to core problems impeding or likely to impede KPU capacity in schools of education.

A Framework for Analyzing Alternative Futures and Interventions to Attain Those Futures

Conceptualizing the Framework

The number of discrete alternative futures which could be generated for SCDEs in KPU is, if not infinite, at least unmanageably large. It is the contention of the authors that a logical structure sufficient to encompass the range of alternatives which a planner might have in mind can be generated from the following four dimensions:[1]

1. Desired end states. Three such end states seem possible:
    - a. To sustain capacity--avoiding conditions under which a diminution in either quantitative or qualitative productivity of SCDEs in KPU would occur.
    - b. To expand capacity--creating conditions under which there will be a quantitative increase in the KPU products and output from SCDEs.
    - c. To improve capacity--creating conditions under which there will be qualitative improvement in the KPU products and output generated by SCDEs.

In more ordinary times for schools of education the preceding list might have included only items (b) and (c) since planners concentrated typically on "more" or "better" strategies for enhancing the capacity of educational organizations. In view of the likely future for SCDEs as described in Chapter VIII, however, diminution of KPU capacity is a probable outcome for the near future and, consequently, the sustaining strategy (encompassing both quantitative and qualitative dimensions) was added.

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[1] A fifth dimension, substantive emphases, may well occur to the reader,

2. Process emphases. These are KP (research and development) on the one hand and KU (dissemination) on the other.

3. Intervention targets. Interventions may be targeted either to individual or institutional performers. An interest in expanding the capacity of SCDEs for research might, for example, be abetted by any of the following tactics: increasing the absolute number of SCDEs involved directly in R and D, increasing the number of research trainings sites in SCDEs, increasing the number of professors within SCDEs spending time on research, and increasing the number of trainees enrolled in SCDE research training programs. The former two of these tactics have an institutional focus while the latter two have an individual focus.

4. Manipulable conditions. The number of organizational conditions relevant to KPU productivity that can be manipulated is limited. It is proposed that the following six conditions encompass the available alternatives:

a. Time.

b. Training.

c. Support systems.

d. Facilities.

e. Environment.

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e.g., such elements as special education, bilingual education, learning theory, school finance, etc. Treatment of this dimension is beyond the scope of this chapter. The reader should bear in mind, however, that recommendations that appear in later sections may be influenced in their impact by such factors as the maturity of conceptualization in the area of study, the number or quality of researchers and/or research centers already at work in the field, etc.

f. Quality control.

Definitions for each of these conditions are provided in the subsequent section.

When these four dimensions are incorporated into a single design, the resulting framework is as pictured in Figure IX-1. This framework provides the conceptual base for the remainder of this Chapter.

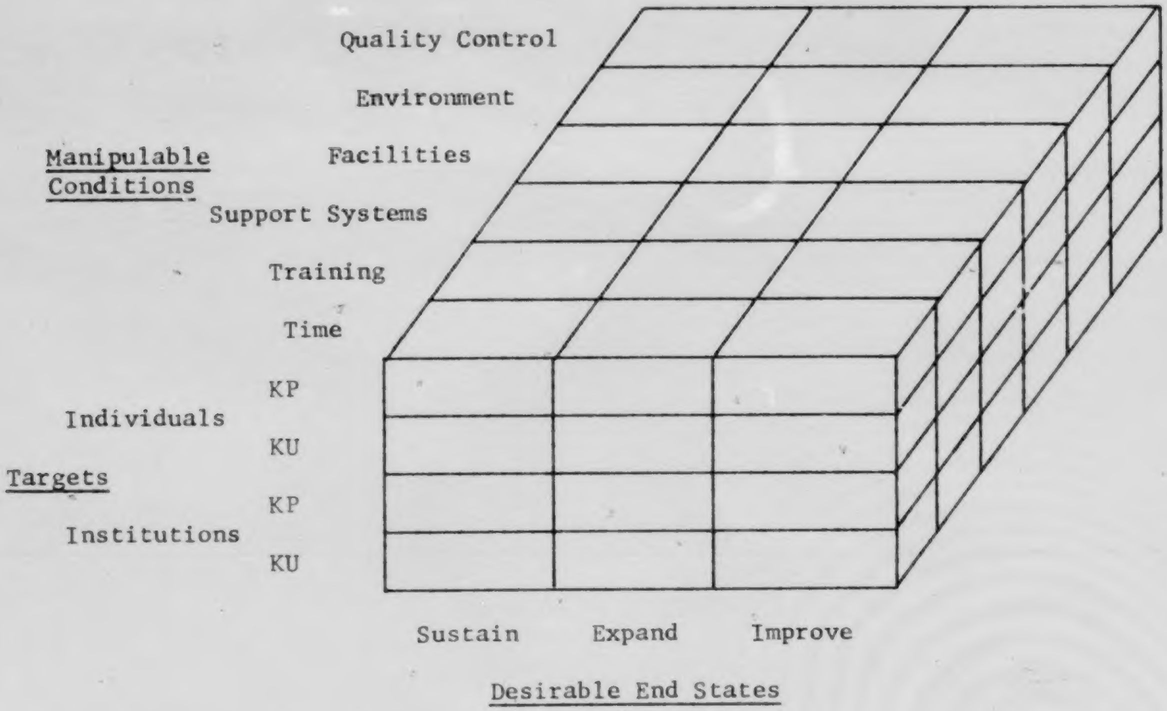
Quality Control
Environment
Manipulable Conditions
Facilities
Support Systems
Training
Time
KP
Individuals
KU
Targets
KP
Institutions
KU
Sustain
Expand
Improve
Desirable End States

FIGURE IX-1: A STRUCTURE FOR GENERATING INTERVENTIONS TO ACHIEVE ALTERNATIVE SCDE FUTURES IN EDUCATIONAL KPU

Defining the Framework

If Figure IX-1 were applied literally, 72 possible intervention strategies could be generated (3 X 4 X 6). Such an effort would result in a level of complexity beyond the scope of either the authors or the reader. To avoid this problem a simplified application of the concepts of the figure will be undertaken based upon desired end states (sustain, expand, improve) and manipulable conditions (time, training, etc.). Contrasts will be made between individual and institutional targets in each case. The KP-KU process dimension will not be treated overtly in generating this inventory of strategies and interventions; they will, however, be commented upon separately in a later section of the chapter in which the interactions of the interventions with critical characteristics of SCDEs will be discussed.

Two definitional tables follow in each of which individual and institutional implications are contrasted. The first, Table IX-1, is concerned with definitions of desired end states, while the second, Table IX-2, is concerned with definitions of manipulable conditions.

Completing the Framework

To this point, the authors have argued that the desired end states sought by planners interested in improving KPU in SCDEs will take one of three forms:

- Sustaining capacity.
- Expanding capacity.
- Improving capacity.

These end states will be sought by devising interventions directed toward either:

- Institutional capacity.
- Individual capacity.

The actual interventions will involve manipulating one of a set of six KPU-related conditions:

- Time.
- Training.
- Support systems.
- Facilities.
- Environment.
- Quality control mechanisms.

TABLE IX-1

DEFINITIONS OF DESIRED INDIVIDUAL AND INSTITUTIONAL END STATES

Desired End State	Institution	Individual
To sustain capacity	To maintain the current level of quantitative and qualitative institutional involvement and productivity in educational KPU by SCDEs.	To maintain the current level of quantitative and qualitative involvement in KPU by professorial staff of SCDEs including both the actual number involved as well as their time commitment in contrast with other functions.
To expand capacity	To increase the number of SCDEs involved in KPU productivity or to increase the number that are high volume producers.	To increase the number of SCDE faculty involved in KPU activities and/or the proportion of time which currently involved faculty devote to KPU.
To improve capacity	To strengthen the institutional commitment to KPU by SCDEs already involved in the mission area and, consequently, to improve the output of KPU activity in conformity with such standards as scientific, technical, or methodological criteria; aggregative quality of results; relevance to educational problems; and utility of KPU products to practitioners and use of these products by practitioners.	To strengthen the individual commitment to KPU by SCDE professors and, consequently, improve the qualitative output of KPU activity as described in the column at the left.

TABLE IX-2

DEFINITIONS OF MANIPULABLE CONDITIONS

Manipulable Condition	Institution	Individual
Time	Protecting or increasing the current fiscal base for KPU at the institution which makes it possible to allocate time regularly to KPU functions and activities.	Protecting or increasing the time available for SCDE professors to engage in KPU activity.
Training	Maintaining or increasing the number of advanced graduate training sites for KPU and/or improving the quality of training in such programs (including initiating or strengthening institutional training sites for post-doctoral or in-service experiences for SCDE personnel in KPU).	Maintaining or increasing the number of students enrolled in pre-service KPU training programs and/or improving the quality of the enrollees in such programs or of their training experiences (including the support of in-service opportunities for professors already engaged in KPU in education or interested in becoming involved).
Support systems	Maintaining, increasing, or improving the variety of organizational mechanisms employed by SCDEs to support professorial staff in their KPU activities, e.g., R and D or field service centers or bureaus, coordinators of research or service, faculty leave programs, reward and reinforcement systems, etc.	Maintaining, increasing, or improving non-institutional support to individual KPU performers as, for example, provisions for graduate assistants, clerical staff, travel funds, etc., as a part of grants and contracts let to professors.
Facilities	Maintaining, increasing, or improving such hardware and software backup units in support of KPU activities as computer capabilities, data banks, laboratories, on- and off-campus demonstration centers, etc.	Maintaining, increasing, or improving such hardware and software backup units for individual KPU performers as ERIC, national data banks, national laboratory or demonstration facilities such as those maintained in the physical sciences, etc.

(Continued)

TABLE IX-2, Concluded

Manipulable Condition	Institution	Individual
Environment	Maintaining, expanding, or improving intra- or inter-institutional mechanisms for socializing faculty to KPU productivity and/or providing collegiality among KPU producers, and/or raising institutional expectations for faculty productivity in KPU, e.g., supporting professional association activities, fostering inter-departmental KPU centers on campus, recognizing and fostering field (practitioner) involvement in joint school-college KPU ventures, etc.	Maintaining, expanding, or improving such devices for socializing faculty to KPU or providing collegiality for faculty as nationally sponsored "invisible colleges," national reward and recognition for KPU achievement as for example, long term individual grants or stipends to professors, facilitating national networks for idea exchange for either KP or KU performers, etc.
Quality control	Increasing or improving cooperative ventures between funding and grantee agencies in the processes of KPU goal setting, reporting, and monitoring, or initiating a program of institutional grants in KPU based not, for example, on competition for an R and D Center but on *ex post facto* assessments of institutional performance in KPU, i.e., a program similar to the National Science Foundation's institutional grants which, effectively, rewarded past excellence in performance.	Complementing the current technique of open competition among individuals for either RFPs or field initiated study grants or contracts with improved interaction between the funder and the performer in relation to all aspects of KPU project or program operations, i.e., qualification, funding, goal-setting, reporting, and monitoring.

The argument has been directed toward SCDEs but in fact would be equally applicable to an analysis of the effectiveness or efficiency of interventions in any educational organization. That, of course, illustrates what is missing in the framework to this point: the unique KPU characteristics of schools of education. These characteristics should influence the likely impact of particular interventions in SCDEs.

As noted in earlier chapters, however, not all SCDEs are involved in KPU activities and by turning to the baccalaureate level SCDEs it is possible simultaneously to illustrate what is meant by KPU characteristics and to delimit the population to be considered in the remainder of this section. The baccalaureate level SCDEs were characterized as:

- Maintaining small faculties in education and of course having no graduate students.
- Focusing their mission statements on the pre-service instructional function, usually specifically excluding institutional commitment to KPU.
- Operating with heavy instructional loads for faculty; 12 to 14 hours of instruction with three or more separate courses taught per academic period.
- Providing no released time or other budgetary provisions for support of faculty KPU activities.
- Unsurprisingly then, only four of these 555 institutions were ranked in the productivity studies as unusual or high producers; 21 were noted as occasional producers; all the rest were low producers with the overwhelming percentage being classified as non-producers (78 per cent).
- In assessing their likely future in KPU activities, the authors predicted that they would remain uninvolved as an institutional group since KPU is actually outside their definition of mission.

This cluster of characteristics is, in our opinion, critical to the assessment of any Federal interventions which might be mounted in educational KPU involving these institutions. The intervention would have to be powerful indeed since its first target would be a modification of institutional mission--

an unlikely outcome. There is no base of local support on which to build, not even released time for faculty. The low likelihood of success of such an intervention assessed against its probably high cost points up the gross inefficiency of such moves.

In fact, those institutions classified in the original RITE category system as "C-Private" (masters level private) and "D-Public and Private" (masters level institutions unlikely to be involved in KPU)[1] also exhibited disabling characteristics in KPU, e.g., only seven of the 75 "C-Privates" and 26 of 260 "D-Privates and Publics" exhibited a sufficient level of productivity to be classed as other than low or non-producers.

This exclusion by institutional type does not mean that no KPU productivity was discovered among these SCDEs; it does mean that observed productivity could be attributed to individual, idiosyncratic behavior on the part of selected professors rather than institutional commitment or support. Even that idiosyncratic productivity was rare. As institutions, these SCDEs are engaged actively in the teaching function but almost overwhelmingly eschew involvement in KPU. Individual interventions proposed as likely high yield strategies for other, more committed, institutional types will undoubtedly, as a spinoff, provide ample opportunity for the maverick professor located in such SCDEs. An intervention directed toward increasing the number of mavericks would, in our opinion, be costly when weighed against predictable results and, therefore, probably not worthy of serious consideration.

There were, however, five RITE-category institutional types with varying KPU characteristics which will be pursued in analyzing interventions:

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[1] An explanation of the RITE category system is included in Chapter III (pp. 1-3) and in Appendix C.

"A-Public"--SCDEs operating at the doctoral level that were predicted on an a priori basis (chiefly previous reputational studies) to be "research center" institutions.

"A-Private"--same as above except privately controlled.

"B-Public"--other doctoral level public SCDEs.

"B-Private"--other doctoral level private SCDEs.

"C-Public"--masters level public institutions that were predicted on an a priori basis (chiefly because of apparent commitment to the teaching profession) to be involved in KPU.

It has undoubtedly occurred to the reader that although there was a high correlation between a priori predictions of productivity in KPU and the actual RITE project measures of productivity, there were noteworthy exceptions, so that categories based on these productivity measures might be more useful for analytic purposes in this chapter. But in fact these productivity categories cannot be used, however appropriate in principle, because the RITE categories were the basis for drawing institutional and faculty samples. Comparable data are thus available only on RITE category classes and not for the productivity categories.[1]

The next five sections of this paper will deal with each of these five retained RITE category groups. Each section will:

1. Summarize known faculty and institutional characteristics.
2. Provide a brief KPU characterization based on these factors.
3. Assess the likely effects of possible interventions suggested by the typology developed earlier in this section.

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[1] Nine productivity categories were used: four classes of high producers: (1) KPU Centers, (2) Other Outstanding Producers, (3) KPU Actives, and (4) Unusual Producers; one class labeled Middle Range Producers; and four classes of low producers: (1) Occasional Producers, (2) Minimal Producers, (3) Idiographic Producers, and (4) Non-Producers. The rules governing this classification system are specified in Chapter V, pp. 33-37.

Applying the Framework to SCDE Institutional Types

Public, Doctoral Research Center SCDEs ("A-Public")

Critical KPU-Related Characteristics.

A. Faculty and Institutional

1. Twenty-six hundred faculty located in 23 institutions ($\bar{X}$=113).
2. Frequent involvement of faculty (65 to 89 per cent) in some form of KPU activity.
3. Significant institutional time (*circa* 30 per cent) allocated to faculty activity in KPU.
4. Many operating KPU training programs; significant source for the production of SCDE faculty.
5. Strong institutional emphasis on KP, KU, and graduate instruction; many of these SCDEs carry the "land grant" concept of service as an important part of their mission statement.
6. Extant local support for KPU in SCDE budget; probably amounts to one-third to one-half of the operating budget.
7. Strong idiographic organizational structure.
8. Typically large, collegially-oriented bureaucratic units.
9. Frequently maintain external, field-based arrangements with schools.
10. Operate numerous KPU bureaus or centers; typically more than one per SCDE.
11. Rely heavily on external support for KPU activities--chiefly Federal government grants and contracts complemented by private foundation grants.

B. Productivity

1. Currently productive in both KP and KU.
2. Fourteen of 23 institutions producing as expected at the "KPU Center" level.
3. The remaining nine institutions could be characterized as "underproducers," but all qualify in one of the high producer categories.

C. Likely Future

1. Decline in number of institutions qualifying for classification as KPU Centers.

2. Decline in number of faculty positions; fewer personnel available to engage in KPU.

3. Some decline in KP emphasis and shift within KP emphasis from basic to applied research; some increase in KU emphasis; both paralleling emergent Federal interest in applied studies and in dissemination.

4. Change in type of KPU Centers from monolithic, all-purpose units to _ad hoc_, fiscally opportunistic units.

5. Decline in intra-institutional budgetary support for KPU.

6. Stable to declining KP productivity; slight increase in KU productivity.

7. Increase in linkages with extra-SCDE agencies in support of emergent KU activities and to offset emergent teacher education competitors, with resulting positive effects on KU activity.

Institutional Characterization. The A-Public SCDEs represent key institutional and individual capacity in both KP and KU. A relatively large number of high producing faculty work in these settings. The institutions have provided local support for KPU functions. They house a large number of functioning KPU centers and bureaus. Although they maintain programs of and commitment to KU functions, their loss as institutional and individual resources would be felt more strongly in KP productivity because so few other SCDE groups are involved in or have the potential for R and D activity. The reward system of these SCDEs is consonant with R and D productivity by professorial staff.

Intervention Effects.

A. Time. From both an individual and institutional viewpoint, time seems to be a critical problem in the A-Public institutions. Intra-institutional budgetary allocations for KPU are especially vulnerable in a period of fiscal constraint. Even in the best of times KPU has been a part-time venture for professors, and has been supported heavily by external funds which are currently diminishing.

These SCDEs have in the past and would continue to respond well to open, competitive field initiated studies programs which "buy-up" a proportion of a professor's time for KP or KU activity. They are effective competitors for such funds. Their idiographic climate allows for institutional rewards for individualistic activity in KPU. They would be natural settings for institutional grants and could probably be expected to protect such grants against the intrusion of other budgetary needs. Their R and D centers could be considered to hold the same potential for institutional capacity which currently governs special treatment for the Federally-sponsored Labs and Centers.

Time purchase interventions ought to have high payoff in these sites but two caveats are worth noting. First, the emergent Federal emphasis on KU may be responded to by these SCDEs with too much vigor because they are in a period of budgetary constraint and KU does fit their institutional emphasis. This could result in an unfortunate overbalance on KU since these SCDEs are a singularly important R and D resource in education. Second, the technique of time purchase through highly targeted Requests for Proposals (RFPs) does not fit either the academic terms or idiographic cultures of these institutions. Continued emphasis on this pattern of funding will have little positive effect on time purchase within these SCDEs.

B. Training. These SCDEs are obviously useful sites for training grants. They currently operate a wide variety and number of KPU training programs, produce a large number of doctoral graduates, and place a goodly share of them in other SCDE positions. Enhancing the quantity or quality of training in KPU in these SCDEs would not only relieve the KPU budgetary pressure on the institutions and shore up their graduate enrollments but, simultaneously, have a multiplier effect on KPU in other educational agencies.

The expansion of post-doctoral, in-service training in these SCDEs, or for professors in these SCDEs, is a newer and higher risk strategy. The notion that non-involved professors could be re-trained in KPU runs against the grain of the professor as an "expert." The yield would probably be low. It is conceivable, however, that training might be a strong technique for supporting already productive professorial staff to improve the quality of their work. If training has potential, it is probably as an individual rather than institutional strategy. Support for pre-service KPU training, however, could have both efficacious institutional and individual effects whether the program were directed primarily at an institutional or individual target.

C. Support Systems. Individual professors accrue support for KPU activity through the same grant and contract techniques noted under the "time" heading. Direct, non-project funding for these support elements would be difficult to administer, control, and evaluate. The most likely technique would be to tie graduate assistant support to internships with individual professors. This would fit the characteristics of these SCDEs very well and should have strong effects.

More important at this point in time, however, would be some form of capacity building grants to institutions in both KP and KU similar to the capacity building and problem solving grants to state education agencies (SEAs) and local education agencies (LEAs) in dissemination. Such grants, and they would of necessity be different in KP and KU, could build upon local support, structures, and programs already in operation in these SCDEs. They might, in some instances, actually focus upon an operating bureau or center but, more typically, would probably be used to shore-up the full range of current SCDE efforts in KPU. Their evaluation could be based upon the joint objectives of expanding and improving KPU capacity on which the funder and recipient agreed at the point of negotiation.

D. Facilities. Although these SCDEs can hardly be characterized as being supported by a plethora of hardware, software, and other facilities to support their efforts, needs in this area are not of highest priority at this point in time. Given the likely difficulty of obtaining Federal funds in support of KPU in education such interventions are probably both low priority and low payoff.

E. Environment. Most of the interventions that could be imagined with an institutional focus to improve the environment or collegiality for KPU within these SCDEs are indirect effects of the types of support noted under "time," "training," and "support systems." The strongest institutional impact would be derived from a manifestation of Federal interest and concern in supporting educational KPU in these SCDEs. The potential acquisition of external funds to complement the local investment in KPU would go a long way toward protecting that local investment and emphasizing the importance of KPU as an institutional mission of priority concern.

On an individual basis, however, there are a number of interventions which might have high payoff. Professors in A-Public SCDEs would typically be very responsive to either invisible college or information networks stimulated by Federal support. Small investments in establishing inter-institutional collegiality for such individuals ought to have quite positive results. Individual, long-term grants or stipends to high producing research personnel in education have not been used by the Federal government and yet would probably have some effect on the status of educational KPU on university campuses. Small contract and grant programs for doctoral trainees and young professors would be responded to vigorously by these SCDEs and should assist substantially in the process of socializing these personnel to career commitments to KPU activity.

F. Quality Control. There is little doubt that gains could be made in this area, but the immediate problems for KPU in SCDEs would seem to place them in relatively low priority. As a matter of fact, the most useful direct intervention in quality control is probably the low-cost effort on the part of funders and recipients to work more closely and compatibly in goal setting, reporting, and monitoring in KPU. A Federal initiative to bring KPU center personnel and Federal program administrators together as an advisory council might be an effective first step.

Private, Doctoral Research Center SCDEs ("A-Private")

Critical KPU-Related Characteristics.

A. Faculty and Institutional

1. Seven hundred faculty in 11 institutions ($\bar{X}$=63).
2. Frequent involvement of faculty (65-89 per cent) in some form of KPU activity; somewhat higher involvement in KP, lower in KU than their "A-Public" counterparts.
3. Significant institutional time (circa 30 per cent) allocated for faculty activity in KPU.
4. Strong institutional emphasis on KP and graduate instruction.
5. Many operating KP training programs; rich mix of graduate assistantships for doctoral students; significant source for the production of SCDE faculty.
6. Extant local support for KP in SCDE budgets; probably amounts to one-third to one-half of the operating budget.
7. Powerful idiographic organizational culture.
8. Generally small, collegially-dominated bureaucratic units.
9. Frequently maintain inter-departmental centers, appointments, and arrangements.

10. Operate numerous KPU bureaus or centers; typically more than one per SCDE.
11. Rely heavily on external support for KPU activities--chiefly private foundation grants complemented by Federal government grants and contracts.

B. Productivity

1. Currently productive in both KP and KU; the latter is viewed as a "fallout" from the former rather than institutionally intentional.
2. Five of the 11 institutions are producing as expected at the "KPU Center" level.
3. Of the remaining six institutions four could be characterized as "underproducers" but fell in one of the high producer categories; two were significant underproducers, being classified among the middle range producers.

C. Likely Future

1. Decline in number of institutions qualifying for classification as KPU centers.
2. Decline in number of faculty positions; fewer personnel available to engage in KPU.
3. Some decline in KP emphasis, shift from basic to applied research; modest increase in KU emphasis, paralleling emergent Federal interest in dissemination. KU emphasis will conflict with traditional promotion/tenure criteria and mission orientation of these SCDEs.
4. Change in type of KPU centers from programmatic focus or all-purpose units to *ad hoc* fiscally opportunistic units.
5. Decline in intra-institutional budgetary support for KPU.
6. Stable to declining KP productivity; slight increase in KU productivity.

Institutional Characterization. Although smaller in number institutionally and individually than their "A-Public" counterparts, these institutions also represent key KPU capacity, especially in KP. They provide local support for R and D and their personnel are expected to and do produce in KPU. They house a large number of KP-oriented bureaus and centers. Their history and institutional commitments are such that one would expect them to emphasize KP rather than KU; idiographic rather than nomothetic productivity; and inter-disciplinary, basic research rather than field-based inquiry.

Intervention Effects. To review the effect of interventions for "A-Private" SCDEs and subsequent categories without reference to the observations noted for the "A-Public" category would result in needless redundancy. Consequently, the treatment of interventions under these headings will refer back to the "A-Public" description and assume that the reader is familiar with it:

A. Time. Almost all the observations made about the "A-Publics" are applicable to this group. If anything, the problem of budget and time allocation for KPU is more critical for these SCDEs. They do not have even the stable base of state support to fall back on in adjusting to this period of fiscal crisis. The fact that less than half of the institutions in the group were producing at the "KPU Center" level may be an indication that the events of the recent past are already taking their toll.

These SCDEs will benefit less than the "A-Publics" from an increased Federal emphasis in KU. They tend to have even more difficulty than their public counterparts in handling tightly designed and monitored RFPs. They can be predicted to respond very well to idiographic funding programs. Their R and D centers are especially useful KP resources in education.

B. Training. Again, the "A-Privates" are premium locations for pre-service training grants. The reader may recall that despite the fact that doctoral enrollments in these SCDEs are much lower than in the "A-Publics", they are the most over-represented institutions in the placement of their graduates in doctoral level SCDEs and especially "KPU Center" sites. If the planner's concern is with R and D productivity these SCDEs are a good locus for investment. Their orientation is such that they are not equally useful as KU training sites.

C. Support Systems. The only difference worth noting here is the KP rather than KU orientation of these SCDEs. Capacity building grants for KU purposes would probably be diverted chiefly for KP purposes. This is in no way meant to diminish the likelihood of high payoff for KP capacity building grants in these institutions. Particular attention ought to be given in such grants to "recapturing" the KP vitality and productivity of the four "other outstanding producer" SCDEs in this group that were not in the "KPU Center" category.

D. Facilities. No difference.

E. Environment. No difference; it is worth noting that these SCDEs would surely take full advantage of both invisible college networks and small grant programs.

F. Quality Control. As noted earlier, the"A-Privates"have had even more difficulty than their public counterparts in adjusting to some Federal support programs. Their involvement in the joint goal setting, reporting, and monitoring advisory council would be imperative.

Other Doctoral Level Public SCDEs ("B-Public")

Critical KPU-Related Characteristics.

A. Faculty and Institutional

1. Ten thousand faculty located in 89 institutions ($\bar{X}=113$).
2. Varying involvement of faculty (circa 50 per cent) in some form of KPU activity.
3. Regularized institutional time (circa 20 per cent) allocated for faculty activity in KPU.
4. From one-third to one-half of these SCDEs operate KPU training programs; significant source for production of SCDE faculty in other"B-Public"SCDEs and masters and baccalaureate level institutions.
5. Some ambivalence in stating KPU missions; KU comes across as a clearer commitment than KP although most of these SCDEs recognize and aspire to KP involvement of faculty.

6. Extant local support for KPU in SCDE budgets, probably from one-fourth to one-third of the operating budget; much of it utilized for KU and applied research.
7. Idiographic organizational structure, but weaker than A-level counterparts.
8. KP productivity essential for promotion and tenure; an obvious conflict situation for some faculty in view of mission emphasis on instruction and KU.
9. Frequently maintain external, field-based relationships with schools.
10. Frequently operate KPU centers, often with KU emphasis; typically more than one per SCDE but significantly fewer than found in the A-SCDEs.
11. External support found only in one-fourth of the institutions; dollar amounts smaller than in A counterparts; external funds are serendipitous overlays to local commitments.
12. Typically large, bureaucratic units striving to maintain collegial governance patterns.

B. Productivity

1. Currently productive in both KP and KU; their level of productivity is easily distinguishable quantitatively from the "KPU Center" group; more evidence of KU productivity.
2. Four of the 89 institutions could be characterized as "overproducers," i.e., "KPU Centers."
3. The modal group (39) are producing as predicted--somewhere in the high producer categories outside the "KPU Center" category.
4. Thirty-six can be considered "underproducers," falling in the middle range category; ten are significant underproducers falling in the low producer group; two of these ten were actually non-producers.

C. Likely Future

1. Significant decrease in the number of these SCDEs that are either producing as expected or overproducing since KPU is a more marginal mission for these SCDEs than for the "KPU Center" group.
2. Decline in number of faculty positions; fewer personnel available to engage in KPU.

3. Marked increase in instructional emphasis as institutions gear up to meet the challenge of emergent competitors for in-service training.
4. Significant decline in intra-institutional budgetary support for KPU activities, especially KP.
5. Significant increase in KU activity; a "natural" mission for these institutions to complement increased concern with field-based, in-service instructional programs.
6. Concomitant decrease in KP activity as resources are allocated primarily in support of instructional and KU missions.
7. Change in KPU centers from all-purpose units to ad hoc, fiscally opportunistic units; emergence of additional units to exploit funding opportunities; emphasis on KU rather than KP missions for such units.
8. Increase in emphasis on traditional promotion/tenure criteria with resulting exacerbation of conflict between production and the reward system for faculty wishing to be responsive to new KU emphasis.
9. Increase in extra-SCDE linkages to tap into external in-service training activities as much as possible and to be KU-responsive.

Institutional Characterization. Nearly a third of all SCDE professors are located in "B-Public" SCDEs. Individually the professors in these institutions are less involved in KPU than their A-level counterparts, but cumulatively they account for a substantial percentage of the overall KPU productivity in SCDEs. Within the institutional group, there are undoubtedly several SCDEs which, with modest encouragement and support, could become "KPU Centers" (four were already identified as functioning at this level). They are undoubtedly strong potential sites for increased programs in KU--already an institutional mission emphasis. Their local budgetary commitments to KPU are large enough to build upon. Their connections with public schools and school improvement programs are already well established. They operate a large number of KPU centers and bureaus. Their professorial staff are rewarded for KPU involvement.

Intervention Effects.

A. Time. The "B-Publics"are a more heterogeneous group than the A's. One sub-set actually has to be considered as "KPU Centers" because that is the level at which the institutions are now producing. Without a history of identification as high prestige SCDEs, these institutions will be especially vulnerable in an era of fiscal constraint and should be considered prime targets for programs of institutional support to sustain their achievements. Another sub-set (*circa* 20 per cent) are already in the "High Producer" category and, with institutional grant intervention, are prime targets to become "KPU Centers." Institutional support, especially in KP, ought to have high payoff if it were targeted on these sub-groups.

All of these SCDEs emphasize KU in their mission statements and are probably good bets for either individual or institutional support for dissemination activities. Again, the *caveat* should be inserted that their need for any form of external support could well result in an overbalance on KU activities, particularly for the two sub-groups mentioned in the preceding paragraph.

For the most part, these SCDEs will respond to individually targeted, open competitive grant and contract programs but will be less successful in these competitions than the A-institutions. Such competitions are quite expensive in these SCDEs because their "hit rate" is lower while their investment is equal to the A-type colleges and universities.

B. Training. Interventions designed to improve the quality of KP training programs in the bulk of these SCDEs would probably have greater effect than those directed toward quantitative increases in either programs or students. Quantitative interventions of either an individual or institutional type should probably be focused on KU training. These SCDEs not only have an orientation toward KU missions and good field relationships to sustain internships, but they are frequently more flexible than some of the "KPU Center" SCDEs in being able to initiate innovative graduate training programs.

C. Support Systems. As noted under "time" above, differences within this institutional group ought to be recognized in optimizing the effect of such devices as capacity building grants. KP-oriented capacity building should focus on the approximately 25 per cent of these SCDEs already functioning as "KPU Centers" or "Other Outstanding Producers." KP grants to the remaining 75 per cent ought to be predicted to have less effect than KU grants which would fit much better into the institution's current level of productivity and commitment to KPU.

D. Facilities. No difference.

E. Environment. Institutional environments are not easily affected by direct Federal interventions. For the top 25 per cent of this category, the observations made for their A-counterparts are appropriate. For the remainder of the group an emphasis on school-college information and collegial networks in support of KU would be most appropriate. These institutions could benefit substantially from a small contract or grant program in both KP and KU to stimulate younger faculty and graduate students to early career KPU productivity. This individually-targeted intervention would undoubtedly have long range institutional effects; and it might be especially useful in support of the KU emphasis in these SCDEs to broaden the target for the small grants to include practitioners working in conjunction with SCDE professorial staff.

An obvious suggestion for school-college KU programs which have not been noted under this category up to this point is to "force" cooperative ventures or parity arrangements across institutions by building such requirements into grant and contract programs. The historic lack of success of such devices in modifying institutional environments has caused the authors to ignore the possibility. In our opinion, most such program requirements result in dysfunctional responses, loss of time and energy, and no real effects.

F. Quality Control. No difference.

Other Doctoral Level Private SCDEs ("B-Private")

Critical KPU-Related Characteristics.

A. Faculty and Institutional

1. Seven hundred faculty located in 30 institutions ($\bar{X}$=27).
2. Varying involvement of faculty (circa one-third to one-half) in some form of KPU activity.
3. Regularized institutional time (20-25 per cent) allocated for faculty activity in KPU.
4. Over half of these SCDEs operate KPU training programs; but they are not a numerically significant source for production of SCDE faculty.
5. Strong emphasis on graduate instruction; broad spectrum of interest in KPU missions but at a lower level than "A- or "B-Public" counterparts; no KPU areas can be designated as "central" to their missions.
6. Extant local support for KPU in SCDE budget; probably amounts to one-fourth to one-third of the operating budget.
7. Strong idiographic orientation.
8. KP productivity essential for promotion and tenure; an obvious conflict situation for faculty since many are not active in KP and these institutions have fewer organizational support mechanisms for KP productivity than any of their doctoral counterparts.
9. Infrequently maintain external field-based arrangements with schools.
10. Often exhibit inter-departmental centers, appointments, and cross-department arrangements.
11. Frequently operate KPU centers; usually more than one per SCDE but significantly fewer than found in the A-type SCDEs.

12. External support found only in one-fourth of the institutions; however, that sub-group derives a substantial proportion of its budget from these sources, especially from private foundations.

13. Typically small, collegially-oriented bureaucratic units.

B. Productivity

1. Currently productive in both KP and KU; considerably less productive as an institutional group than the "B-Publics" but more productive per faculty member; somewhat more strongly oriented toward KP than the "B-Publics."

2. One of the 30 institutions could be characterized as an "overproducer," i.e., a "KPU Center."

3. The modal group (14) are producing as predicted--somewhere in the high producer categories outside the "KPU Center" category.

4. Eight can be considered "underproducers," falling in the middle range category; and seven are significant underproducers falling in the low producer group.

C. Likely Future

1. Significant decrease in the number of these SCDEs that are either producing as expected or overproducing since KPU is a more marginal mission for these SCDEs than for the "KPU Center" group.

2. Decline in number of faculty positions; fewer personnel available to engage in KPU.

3. Marked increase in instructional emphasis to compete for masters level in-service market.

4. Significant decline in intra-institutional budgetary support for KPU activities.

5. Some increase in KU interest but not as much as in the "B-Public" group; inhibited by inclination of "B-Privates" to attempt to emulate their "A-Private" counterparts; loss of relative competitive position in relation to emerging KU interests and funding.

6. Some decline in KP interest; the existing press in some of these institutions to move up to the "A-Private" level will be forestalled by the difficult survival problems confronting these institutions.

7. Change in KPU centers from all-purpose units to ad hoc, fiscally opportunistic units.

8. Increase in emphasis on traditional promotion/tenure criteria, aggravating the conflict which already exists for faculty attempting to meet these criteria.

9. Some decrease in both KP and KU productivity.

10. Some increase in extra-SCDE linkages to support interest in in-service instructional market.

Institutional Characterization. The "B-Privates" are not an easy group to characterize in terms of KPU capacity. They are relatively small in number, institutionally and individually. Their local budget for KPU and their faculty characteristics bear striking similarity to the "B-Publics," but their aspirations seem to lie more in the direction of emulating the "A-Privates," i.e., they tend to depress interest in KU activities for which their faculty seem well suited. Their graduates, for example, seem to gravitate toward public school rather than SCDE positions. However, they infrequently maintain formal field-based arrangements for KU with schools. A few may have the potential of moving to "KPU Center" status (one is already functioning at this level). They do maintain local budgetary allocations for KPU, KPU bureaus and centers, and a faculty reward system which could be built upon for KPU purposes.

Intervention Effects.

A. Time. The top 25 per cent of this group (seven SCDEs) have characteristics similar to the upper quartile of the "B-Publics" and little needs to be added about them.

As an overall group, however, the "B-Privates" do not emphasize KU and the references to KU which were germane to the "B-Publics" are inapplicable in this group.

B. Training. With the exception of the top quartile, and perhaps the five small programs noted as "Unusual Producers," these SCDEs would typically be low payoff sites for programmatic training grants. Graduates of these institutions tend not to be employed as SCDE faculty; the group's lack of interest in KU would lead to the conclusion that they are not likely to generate innovative training programs in KU.

C. Support Systems. KP-oriented capacity building grants would be appropriate for circa 12 of these 30 SCDEs. A few obviously have both the potential and inclination to move to "KP Center" status. KU capacity building, on the other hand, would not fit the organizational missions of most of these SCDEs.

D. Facilities. No difference.

E. Environment. As noted for the "B-Publics," the top 25-40 per cent of the category would be covered by the observations made regarding A-level institutions. The remaining suggestions regarding KU environments are generally inapplicable to this group.

F. Quality control. No difference.

Masters Level Public SCDEs ("C-Public")

Critical KPU-Related Characteristics.

A. Faculty and Institutional

1. Twelve thousand faculty, more than a third of all SCDE faculty, located in 183 institutions ($\bar{X}$=47).

2. Infrequent involvement of faculty in KP activity, less than 10 per cent; more frequent involvement in some form of KU activity (10 to 34 per cent).

3. Little institutional time allocated for faculty activity in KPU (median was none); heavy instructional loads, circa 13 hours per academic term.

4. Almost none of these SCDEs are involved in operating KPU training programs; they are not a significant source for producing SCDE faculty although their graduates frequently move to doctoral level programs for advanced training.

5. Major institutional emphasis on pre-service and in-service training; considerable interest in KU; little or no institutional commitment to KP; expressed mission interest in KU is not matched by organizational arrangements and support systems for KU.

6. Local budgetary support for KPU is modest. It would consist typically of KU-oriented bureaus or field arrangements with schools; even including faculty released time it would probably not amount to more than 10 per cent of the operating budget.

7. Idiographic organizational culture tempered by the fact that a goodly proportion of a faculty member's load is regularly assigned through teaching.

8. Frequently maintain relationships with schools; from one-third to one-half have formal service arrangements with schools.

9. Over half operate KPU bureaus or centers, most with service or KU orientations.

10. Reward structure is consistent with primary institutional mission (instruction); KPU productivity is recognized, rewarded, but not required.

11. Little reliance on external KPU support; budgets derive from state appropriations based on enrollment and from tuition.

12. Essentially collegial governance patterns tempered by somewhat stronger central administrative roles than doctoral counterpart institutions.

B. Productivity

1. Low KPU productivity. Most KP contributions derive from idiographic response by faculty and are not institutionally sponsored or supported. KU productivity is more likely to be institutionally sponsored.

2. Twenty-one of these 183 SCDEs could be characterized as "overproducers"; none fell in the "KPU Center" category but each fits one of the other three high producing categories.

3. The modal category (53) was the predicted middle range producer classification.

4. Well over half the group, however, were "underproducers"; 30 were classed as "Occasional Producers;" the remaining 79 would have to be considered significantly underproductive, including 35 non-producers.

C. Likely Future

1. Decrease in the number of SCDEs that are either producing as expected or overproducing since KPU is a distinctly marginal mission for these SCDEs.

2. Decline in number of faculty positions; effect on KU will be more pronounced than on KP since the extant productivity is typically the former rather than the latter.

3. Much heavier emphasis on instructional program as competitors for in-service training programs emerge.

4. Increase in KU activities as Federal emphasis on dissemination funding grows. Potential conflict for entreprenurial faculty who have developed personal consultative relationships with schools.

5. Virtual abandonment of institutional commitment to KP activity; individual professors will continue to make idiographic contributions in KP.

6. Emergence of a variety of extra-SCDE linkages to support in-service training and KU involvements.

Institutional Characterization. A large, relatively untapped, faculty and institutional resource for KU (over a third of all SCDE faculty) exists in these settings. The current level of KP involvement is low, primarily idiographic. These SCDEs are, however, engaged in a variety of KU activities and express institutional commitment by mission statement and budgetary allocations to KU involvements and productivity. Collectively they are already operating a large number of KU-oriented bureaus and centers. They frequently maintain relationships with schools. Their reward structure for faculty allows for extensive field involvements and KU activity without jeopardizing professional careers. Their instructional commitments to in-service education provide strong, extant field-based linkages. Although a sub-set of these SCDEs might well be considered as likely sites for KP productivity (circa 10 per cent are now in that category) the most promising area of expansion should probably center upon their role in a national dissemination network, i.e., increased KU productivity.

Intervention Effects.

A. Time. The small percentage (circa 10) of these SCDEs that are involved in KP activity are fitted by the comments on "time" interventions made in the "B-Public" section.[1] The distinctive flavor of this SCDE group is obviously the possibility of tapping into a significantly large KU resource. However, in contrast to the SCDE types which have been discussed up to this point in the chapter, these schools of education have not typically devoted significant local resources to match their institutional mission statements in emphasizing KU activity by faculty. The key to developing this national network of SCDEs will be the provision of systematic, released time for faculty in KU.

Any effort to "buy into" the avowed institutional interest of these SCDEs in KU should probably carry an institutional matching commitment in an effort to institutionalize released time for faculty in KU. Such a program would probably have to be designed as some form of institutional or capacity building grant with matching funds. If progress is made in building state level programs utilizing dissemination linking agents, consideration should be given to viewing the "C-Publics" as potential sources and homes for such agents. These institutions, after all, are very much a part of each state's investment in education; as their formal instructional load levels off and decreases, their role in a personalized KU linking system could grow. This growth would simultaneously avoid the necessity of inventing still another educational unit to house and legitimate the role and function of the linking agent.

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[1] This is an appropriate time to re-emphasize the fact that maverick SCDEs exist in other categories not covered in this section, e.g., one high producing "C-Private," three high producing and six "unusual" producing D-type SCDEs, one high producing and three "unusual" producing baccalaureate SCDEs. It is not our intention to ignore these institutions, but their unusual status does not seem to justify concentrating upon them for national level planning purposes. As institutions, they would benefit from the same interventions noted for the classes of institutions covered in this section; individual performers in all institutional types could obviously take advantage of the proposed individual interventions. The fact that neither the individuals nor institutions in the "C-Private," D-, E-, and F-type institutions are a collectively significant KPU resource does not obviate the fact that they are a resource which should not be overlooked.

B. Training. Currently these institutions are essentially irrelevant to the KPU training which occurs in SCDEs. They should probably remain so unless an effort is undertaken to support their increased involvement in KU. If that were done, they might be considered as: (a) sites for internship training for programs housed in A- and B-type SCDEs; (b) locations for training programs for sub-doctoral level trainees in dissemination and evaluation who might work in and with local schools; and (c) support systems for or partners to local teacher centers to focus some of the attention in these centers on general KU training.

C. Support Systems. As noted under "time" above, these SCDEs represent likely targets for institutionally based capacity building grants in KU. Many of them also operate KU centers currently and these centers could be considered as possibilities for KU support, taking advantage of such operating structures as school study councils, leagues of schools, etc.

D. Facilities. No difference.

E. Environment. The comment first noted under the "A-Publics" is probably a cogent observation to be reiterated here. The strongest institutional impact on these SCDEs in increasing their involvement in and commitment to KU activity would simply be a strong manifestation of interest by the Federal government in involving them centrally in knowledge utilization programs. The likely positive institutional response by these SCDEs would create the supportive environment needed to encourage faculty efforts.

As noted for other groups, these SCDEs would obviously benefit from devices intended to emphasize school-college and collegial networks in support of KU.

F. Quality Control. No difference.

Summary and Recommendations

The thrust of the argument in this chapter has been that (1) the predicted decline in productivity of schools of education in knowledge production and knowledge utilization is likely but is not inevitable; (2) a wide range of Federal interventions is possible which could redirect this likely future to quite different desired end states; and (3) a knowledge of the critical KPU characteristics of SCDEs allows for a reasonable valid assessment of the likely effects of various interventions.

The authors do not wish to conclude this chapter with a closed set of recommendations to be debated by concerned policy makers and planners. Rather, we would hope that sufficient data have been presented to allow readers to posit desired end states of interest to them and to test the face validity of alternative interventions to attain those ends. Conversely, we do not wish to avoid noting our own suggestions and intend to do so within the spirit of this paragraph.

Assumptions

In considering desired end states for SCDEs in KPU, we assume that:

- The historic and extant investments and achievements of SCDEs in knowledge production and knowledge utilization are substantial. These agencies do, in fact, represent a major capacity for KPU productivity in American education.

- SCDEs are in a period of general fiscal recession and one of the predicted outcomes is a decrement in KPU productivity--a lessening of their capacity.

- The climate in Washington toward investments in R and D generally, R and D in education particularly, and teacher education specifically is neutral to negative.

- The proposing of end states that have no practical hope of achievement may be useful in the general literature of a field but, at this point in time, will distract attention from needed interventions to forestall a short range crisis confronting not just schools of education but educational KPU generally.

- The postponement of interventions to prevent loss of KPU capacity in SCDEs will have the effect of damaging other KPU efforts in education which employ the output of these agencies and will necessitate heavier investments over the long haul to restore that capacity.

Recommendations

Within this limiting framework of assumptions, there are three end states which the authors would argue are highly desirable and achievable:

1. To sustain the research and development (KP) productivity of SCDEs currently functioning as "KPU Center" institutions.
2. To expand modestly the number of SCDEs producing at the "KPU Center" level.
3. To expand the role of SCDEs in the Federal government's dissemination in education program (KU).

Sustaining KPU Centers. There are a small but significant number of SCDEs which far out-produce their sister institutions in R and D. The RITE project labeled 24 institutions as "KPU Centers" but recognized that another 36 are "Outstanding Producers." This group of 24-60 SCDEs are the single most productive source of R and D in American education. Further, providing them with the external support to maintain their capacity would be neither inordinately difficult nor expensive, for example:

- These SCDEs respond well to open, competitive, field-initiated studies programs; such programs can simultaneously reflect national priority areas of study and be open to individual, high quality producers in all types of SCDEs and other agency settings.
- All of these SCDEs operate locally-based R and D centers with a variety of substantive emphases. The more effective of these centers could be made eligible for programmatic grants, and even a modicum of imagination in research administration could improve markedly their ability to compete for RFPs.
- A small number of training grants for doctoral students in R and D (with either an individual or institutional focus) would not only assist these SCDEs but create a multiplier effect for other SCDEs which use these institutions as a primary recruitment pool for faculty.
- Relatively small capacity sustaining (or development) grants in KP to these SCDEs would offset the effects of the recession and stimulate

> the reallocation of college and university funds to support KPU in education locally. As economists have noted in regard to general recessions, the effects are exacerbated by psychological reactions to the recessions. Development grants at this time would reverse the psychological force from negative to positive.

Expanding KPU Centers. The historical data from the RITE project are too imprecise to argue unequivocally that the diminution in research center institutions from the 34 that were identified on an *a priori* basis to the 24 identified on the basis of RITE productivity measures is a consequence of the fiscal constraints of the past several years. It is plausible that it may be nothing more than an artifact of different classification systems. However, the authors' impressions from the quantitative data gathered by questionnaire and the site visits is that the difference is not wholly artifactual. In our opinion, a number of institutions have already experienced a diminution in R and D productivity and could easily be retrieved with lowcost, targeted interventions. All the techniques noted in the previous section would abet this effort to increase the number of KPU center SCDEs but the key recommendation would be some form of capacity building grant in KP. These SCDEs might also be especially assisted by a vigorous small grant program for doctoral students and young faculty.

Expanding KU Involvement. Whether or not SCDEs were confronting a period of recession , the time is already overdue for involving them more explicitly in the Federal government's emerging emphasis on KU activities. Their current and past investments in KU activity, their wide geographic dispersion as institutions, and their continuing involvements with schools and teachers make them likely high payoff locations for KU dollars in education. Especially useful sub-groups in this regard are the public doctoral and masters level SCDEs in which KU involvement is already a stated institutional mission. High impact tactics would include:

- KU capacity building grants coordinated with the capacity building grant program already begun with SEAs and/or the new teacher center program. These grants might well include a local matching feature which could be met by most doctoral, public SCDEs through their current budget allocations to KU but which would force most masters, public SCDEs to support their KU mission with added local contributions.
- Training grants for students and practitioners interested in building up their expertise in KU activities, perhaps tied into teacher center programs or at least using such centers as field sites for internships.
- Programmatic support of some operating KU centers, e.g., school study councils, networks or leagues of schools, in which the present level of effective dissemination activity justifies the investment.

Conclusion

These interventions may strike the reader as modest, unsurprising, and incomplete. We hope they do, for those are exactly the features which an achievable set of interventions will need to possess if they are to be successful in the current Federal environment. Direct investments in qualitative improvements in KPU have been ignored. That does not mean that such concerns are considered unimportant by the authors but that the priority issue is maintaining a reasonable capacity to produce. Major quantitative expansions have been avoided not because they are undesirable but because they appear to be unachievable.

But now is the time to return to the introductory remarks made in this section. Our recommendations have been shared with the reader not to constrain the agenda of recommendations and interventions to be considered but to stimulate the formation of such an agenda. They should be treated in that light.

APPENDIX A

THE INSTITUTIONAL QUESTIONNAIRE AND COVER LETTER

INDIANA UNIVERSITY
School of Education
2805 East Tenth Street
BLOOMINGTON, INDIANA 47401

TEL. NO. 812 337-9637

CENTER FOR RESEARCH ON INSTITUTIONS
OF TEACHER EDUCATION

Dear

Enclosed is the questionnaire which you kindly agreed to complete during our recent telephone conversation. We are most appreciative of your willingness to cooperate in this study of schools, colleges, and departments of education (SCDEs, a designation we will use in the questionnaire). Although the time and work involved will be considerable, we believe that they can be justified by:

(a) Providing the teacher education community and the National Institute of Education with an accurate assessment of the current involvement of SCDEs in research, development, evaluation, dissemination, special training, and field service activities.

(b) Setting the stage for better policy and program planning at the Federal level in supporting such activities across the full range of SCDEs.

You will recall from our telephone conversation that we are trying to combine the techniques of the questionnaire and the interview in this data gathering effort. This means that you can approach this questionnaire a little differently from most such instruments, that is:

(1) We want you to respond only to those questions which you feel confident that you understand and for which you can supply an answer without inordinate effort.

(2) If we confuse you (as we undoubtedly will) by clumsy wording or by asking for information which you have in somewhat different form than that which we request, place a question mark in the margin and we will discuss that item with you by phone.

(3) If the question is clear but additional information you have would better portray your institutional situation,

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(3) If the question is clear but additional information you have would better portray your institutional situation,

or if you have a cogent example to report, place a plus sign in the margin and we will ask you about it by telephone.

We have also tried to reduce the number of items on the questionnaire by requesting the enclosure of documents that you may already have available when such documents would supply the information needed for the study. You will be returning a packet to us rather than simply a questionnaire. It is for this reason that we have not enclosed a return envelope. We have, however, enclosed a self-addressed mailing label which can be affixed to whatever packet you may assemble.

To the extent possible, we are trying to obtain a "feel" for the involvement of your education unit in research, development, evaluation, dissemination, special training, and field service activities. We are much less interested in counting items than in understanding from you what is going on. Questionnaires are incomplete at best; misleading at worst. We have tried to ask our questions clearly and briefly but we will undoubtedly miss the boat for any given SCDE a number of times in the pages that follow. We need your help to stay on course.

We should also note that the time required will vary considerably by institutional size. If you are located in a relatively small SCDE you will discover that the questionnaire's bark is worse than its bite. Many of the items will be applicable to your situation and you can cover the pages fairly quickly. We just don't have any good news for deans in the larger units.

Two final reminders: as we mentioned on the phone we will be sending a brief questionnaire to a few members of your faculty. We will send you a copy of the questionnaire for your information before it is sent to any faculty member. We will, of course, not indicate any endorsement of the questionnaire by you in contacting the faculty. Let us also reiterate that no data will be reported singly or aggregated in such a fashion that participating institutions can be identified.

Again, thank you for your effort. We will stay in touch with you during the project period and would be most willing to provide you with any feedback that might seem useful to you. Please make a copy of your response to the questionnaire since this will facilitate any subsequent conversations we may have with you.

If you need to contact us while you are working on the questionnaire, call us collect at 812-337-9637.

Sincerely,

David L. Clark

Egon G. Guba

DLC:EGG:dhc

or if you have a cogent example to report, place a plus sign in the margin and we will ask you about it by telephone.

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INDIANA UNIVERSITY

PROGRAM OF RESEARCH ON INSTITUTIONS OF TEACHER EDUCATION

A NATIONAL STUDY OF THE ROLE OF SCHOOLS, COLLEGES, AND DEPARTMENTS OF EDUCATION IN KNOWLEDGE PRODUCTION AND UTILIZATION

Please return this questionnaire and the requested supplementary documents to David L. Clark and Egon G. Guba, Research on Institutions of Teacher Education, H.L. Smith Center for Educational Research, Indiana University, 2805 East Tenth Street, Bloomington, Indiana 47401. (Telephone 812-337-9637)

Name of Respondent*:

Title* :

Institution :

Address :

Telephone Number* :

*If the individual responsible for completing the questionnaire is other than the person we have designated please make the necessary changes on this sheet.

SECTION 1 - GENERAL INFORMATION*

1.1 Total Institutional Enrollment (all degree levels on your campus)

Academic Year 1974-75 (excluding summer session): ______________

1.2 In the following table please check the level(s) at which education degrees are awarded at your institution and record your best estimate of the number of degree recipients in education at each degree level for the period July 1, 1974 to June 30, 1975.

Degree Level	Program Offered in Education		Number of Students Completing Degree Requirements in Education (July 1, 1974 - June 30, 1975)
	Yes	No	
Bachelor			
Master			
Specialist			
Doctor			

1.3 In your baccalaureate level, pre-service teacher education program, can a student major in education as well as complete certification requirements? Please check all appropriate cells below.

Level of Preparation	Major in Education	
	Yes	No
Elementary		
Secondary		

* If a question confuses you, place a question mark on the left side of the sheet before the designated question number; if you have additional information that we should know about that just does not fit the form of the question, place a plus sign in the margin before the designated question number.

1.4 We are interested in obtaining an accurate estimate of the number of faculty members working in your SCDE. We know that is often easier asked than done because of the individual organizational arrangements on campuses and the split assignments of faculty members. The three questions below are intended to cover first, the relatively unambiguous cases - the full time professor working in your SCDE; second, the university faculty member who may be in an A and S department or may be a university administrator who teaches professional education courses; and third, the part-time or associate faculty (usually public school personnel in the area) who teach courses in your SCDE. This explanation, and the three questions that follow, will not cover every exceptional case but do your best to allocate the faculty in this way. We have left space for explanatory comments if you feel you need to clarify your situation.

1.4.1 How many regularly appointed members (excluding graduate students employed as teaching assistants) were assigned full time to your school, college or department of education (SCDE) during the 1974-75 academic year?

Number__________

1.4.2 How many faculty members regularly assigned to other academic units or administrative responsibilities on campus taught professional education courses, e.g., educational psychology, methods courses, supervision of student teachers, etc, during the 1974-75 academic year?

Number__________ Full time Equivalent__________

1.4.3 How many individuals not regularly appointed full time to the university faculty taught professional education courses during the 1974-75 academic year?

Number__________ Full time Equivalent__________

1.5 Please enclose with this questionnaire a roster of full time faculty for your SCDE. We anticipate that, in almost all instances, you will have a roster available which you use for other purposes. If the roster includes both full and part time faculty, please cross out the names of the part time faculty members and, of course, of any non-faculty persons whose names may happen to appear on the list. We are interested in a list of those individuals designated in 1.4.1 above.

Faculty roster enclosed: Yes_____ No_____

1.6 As you project ahead to 1980 do you anticipate that:

1.6.1 The total enrollment at your institution will:

_____ Increase by 10% or more

_____ Stay about the same

_____ Decrease by 10% or more

1.6.2 The total enrollment in education will:

_____ Increase by 10% or more

_____ Stay about the same

_____ Decrease by 10% or more

1.6.3 Faculty in education will:

Increase by________ (number of positions)

Stay about the same__________

Decrease by __________ (number of positions)

1.6.4 The degree levels at which programs are offered in education will:

Remain the same_____

Be decreased _____ (specify reason): __________________________

____

____

Be increased _____ (specify reason): __________________________

____

____

SECTION 2 - MISSION OF THE INSTITUTION

Most institutions have written mission statements at the university, college, and/or academic unit level. These statements, frequently prepared for inclusion in bulletins, catalogs, handbooks, planning documents, or accreditation reports, may be stated solely in terms of teaching (e.g., student competencies to be acquired) or may encompass institutional declarations of commitment to research and service. The arena of institutional concern is sometimes specified, e.g., students-in-residence, the immediate community, a region of the state, the state, a region of the country, or the country.

2.1 Do you have such a statement for:

2.1.1 the institution as a whole? Yes_____ No_____

2.1.2 the SCDE? Yes_____ No_____

2.2 If the answer to 2.1.1 or 2.1.2 is Yes, please clip the statement, or reproduce it, from the latest source document in which it appeared (a recent--last two years--state, regional, or national accreditation report is usually most comprehensive) and enclose it with this questionnaire, noting the source document in which it was published.

Mission statement enclosed: Yes_____ No_____

2.3 Regardless of the document(s) furnished in 2.2 above, please fill in the table on pages 5 and 6 indicating your opinion of the extent to which the faculty and administration of the SCDE emphasize certain non-teaching activities.*

2.4 Institutions vary in regard to the geographic area in which they endeavor to have impact. What do you believe the geographic area of impact to be for your SCDE, e.g., your own campus, the local community, a region of the state, the state, a region of the country, or the entire country?

____

____

____

---

* Throughout the remainder of the questionnaire we will be asking you about this full range of non-teaching faculty activities. To avoid endless repetition we will refer to them as research, development, evaluation, dissemination, special training, and field service activities. As you see this shorter exemplary designation please recall that we are searching for all the activities listed on page 5 plus any that you may wish to add.

2.3 (continued)

Activity	Emphasis Placed on Activity in SCDE			
	Central to SCDE Mission	Of Some Interest to SCDE	A Few Faculty Involved	Of No Interest to SCDE
Developing generalizable educational products, e.g., texts, other curricular materials				
Testing and evaluating generalizable educational products and services				
Disseminating information about educational innovations				
Effecting change in elementary and secondary schools				
Evaluating school practices				
Producing basic knowledge about education				
Producing applied knowledge about education				
Maintaining a data base for and about education				
Conducting in-service projects and programs for school personnel (excluding regular advanced degree programs)				
Providing individually negotiated consultant assistance				

(table continued)

2.3 (table concluded)

Activity	Emphasis Placed on Activity in SCDE			
	Central to SCDE Mission	Of Some Interest to SCDE	A Few Faculty Involved	Of No Interest to SCDE
Conducting field service projects with and for schools				
Demonstrating new practices and innovations				
Servicing and nurturing new programs that have been installed in schools				
Other* (specify):				

2.5 Different institutions assume different postures with regard to faculty participation in activities such as those listed in the immediately preceding table, i.e., those activities not directly connected with classroom instruction but addressed to research, development, evaluation, diffusion, demonstration, field service, and the like. From among the following six statements please check the one that best characterizes the posture in your institution. If none of the statements can be used by you, please note the key characteristics from the several statements which you think would better portray your situation in the space designated for commentary.

_____ Disclaims any significant interest or commitment to these activities. The institution places predominant emphasis on involvement in and successful completion of teaching responsibilities.

(statements continued)

---

* The items in this list are intended to encompass the "usual" range of SCDE activity, but your SCDE may have other activities which from your point of view obviously should be included on the list. Please insert these.

2.5 (continued)

_____ Does not emphasize such activities but encourages the faculty to carry them out on their own time and with their own resources. Does not provide, for example, load adjustments even when outside grant or contract money is involved.

_____ Generally approves faculty participation in such activities and is permissive about faculty devoting some portion of their time, e.g., one day per week, to them (including outside consulting). Faculty members are nevertheless viewed as private entrepreneurs in this area.

_____ Generally approves faculty participation and takes an active role in stimulating it. Faculty members are seen as institutional representatives in this area. Usually the institution will make an effort at least to keep faculty informed about funding opportunities.

_____ Defines such activities as an integral part of the formal institutional mission (i.e., it expects faculty to participate) and defines a portion of the load of each faculty member in this area.

_____ Same as above but also provides a variety of organizational arrangements to stimulate and support such activities, e.g., a bureau or center of research, an associate dean for field services, earmarked seed money to stimulate projects, etc.

_____ Commentary:

2.6 Do you anticipate any changes over the next five years in the institutional posture as described in Item 2.5? If so, please indicate to which of the six alternatives you feel your institution will be moving. Cite reasons if possible.

2.7 Do you anticipate any changes over the next five years in the emphasis in your SCDE on the variety of activities outlined in Item 2.3? If so, please indicate what activities might be emphasized or added as well as those that might be de-emphasized or deleted. Cite reasons if possible.

SECTION 3 - ORGANIZATIONAL ARRANGEMENTS

Some SCDEs establish institutional expectations for faculty involvement in diverse non-teaching functions such as research, development, evaluation, dissemination, special training, and field service activities. In other units where these functions are not institutionally emphasized, there are still a number of individual faculty members who take on such responsibilities. In either instance, organizational arrangements are needed to, on the one hand, encourage, stimulate, or facilitate faculty involvement, or, on the other, to permit or even to encourage mildly such individual activities. The scope of organizational arrangements may include at one extreme such formalized structures as a research or field service bureau or center or a coordinator of research or field service, or, at the other, unwritten understandings that a faculty member may devote some portion of his time to non-teaching activities at his discretion. The arrangements may permeate general policies of the unit, e.g., apportioning a percentage of each faculty member's time for such activities, or taking into account productivity in these areas in deciding upon promotion or tenure. The following questions are intended to identify some of the arrangements that may have been established at your institution and within your SCDE.

3.1 Does your SCDE have a bureau, institute or center for research, development, evaluation, dissemination, special training or field service activities?

3.1.1 Yes_____ No_____ (If No, move to item 3.1.9)

If Yes, please attach to this questionnaire any available brochures or documents describing such unit(s).

3.1.2 Brochures or documents enclosed: Yes_____ No_____

If No, please describe the unit(s) briefly in the space below. If the space provided is insufficient on this or subsequent questions, use the reverse side of the page.

3.1.3 Name(s) of bureau(s), institute(s), or center(s).

(a)____

(b)____

(c)____

3.1.4 Primary process orientation of each unit designated above, e.g., research, development, field service, evaluation, etc.

(a)____

(b)____

(c)____

3.1.5 Primary substantive orientation of each unit designated above, e.g., special education, urban education, educational administration, etc.

(a)____

(b)____

(c)____

3.1.6 Source(s) of funds to support each unit designated above. Check more than one source per unit when applicable:

Sources of Funds	Units as Designated Above		
	a	b	c
College or university			
Local education agencies			
State education agency			
National Institute of Education			
U.S. Office of Education			
National Institutes of Health			
Private Foundations			
Others (specify):			

3.1.7 Is it your prediction that any of these bureaus, institutes, or centers will be eliminated over the next five years:

3.1.7.1 Yes_____ No_____

3.1.7.2 If yes, please note below the unit(s) which are likely to be dropped:

(a)____

(b)____

3.1.8 Are any of these units likely to undergo major changes in the next five years in their process or substantive orientation or source of funding?

3.1.8.1 Yes_____ No_____

3.1.8.2 If Yes, please describe below:

____

____

____

____

3.1.9 Would you predict that over the next five years your SCDE is likely to add a bureau, institute, or center for research, development, evaluation, dissemination, special training, or field service activities?

3.1.9.1 Yes_____ No_____

3.1.9.2 If Yes, please describe below:

____

____

____

____

3.2 Are any personnel within your SCDE released on a full or part time basis to stimulate, coordinate, monitor, or support R and D, evaluation, dissemination, special training, and field service activities within the unit? Do you, for example, have an assistant dean for R and D; or a coordinator of field services; or a consultant on design or statistical problems, etc.?

3.2.1 Yes_____ No_____ (If No, move to item 3.2.6)

If Yes, please note below the number of individuals so designated and their assignment:

3.2.2 Number of individuals involved:__________

3.2.3 Full time equivalent of 3.2.2:__________

3.2.4 Titles and designated responsibilities:

(a) Title:______________________________

Responsibilities:______________________________

____

(b) Title:______________________________

Responsibilities:______________________________

____

(c) Title:______________________________

Responsibilities:______________________________

____

3.2.5 Is it likely that your SCDE will, over the next five years, change the number of personnel involved in such activities?

_____Likely to increase number

_____No change contemplated

_____Likely to decrease number

3.2.6 If you do not currently have such assistants who work with the faculty in your SCDE, are you likely to add such a position over the next five years?

3.2.6.1 Yes_____ No_____

3.2.6.2 If Yes, please describe the primary responsibilities which might be assigned to the position:

____

____

____

3.3 Does your SCDE maintain a faculty committee charged with responsibility for stimulating, coordinating, monitoring, or supporting research, development, evaluation, dissemination, special training, or field service activities?

3.3.1 Yes_____ No_____

3.3.2 If Yes, please specify below the primary responsibilities and emphases of the committee's work:

____

____

____

____

3.4 In addition to or instead of the items noted in 3.2 and 3.3, some institutions maintain services at the university level which the SCDE can use in support of its non-teaching activities. Please note below the arrangements, if any, available at your institution. (If your SCDE is located on a regional campus, skip this question. The same information will be covered for your institution in 5.5.6.)

3.4.1 University research foundation: Yes_____ No_____

3.4.2 University official who coordinates external grant and contract activities:

3.4.2.1 Yes_____ No_____

3.4.2.2 If Yes, please note the title of this designee:

____

3.4.3 Regularized system for distributing information concerning available external funds to support faculty activities:

Yes_____ No_____

3.5 Within your SCDE do you maintain:

3.5.1 A laboratory or demonstration school? Yes_____ No_____

3.5.2 An in-house journal, newsletter, or occasional paper series in which faculty publish regularly?

3.5.2.1 Yes_____ No_____

3.5.2.2 If Yes, please provide the title of this publication(s):

____

____

____

3.5.3 If you currently operate a laboratory or demonstration school, is it likely that over the next five years it will be:

_____Retained much as is?

_____Dropped?

_____Expanded?

_____Altered in emphasis?

3.5.4 If you noted Expanded or Altered in emphasis in 3.5.3 please explain the contemplated changes below:

____

____

____

____

3.5.5 If you currently maintain an in-house journal, is it likely that over the next five years it will be:

_____Retained?

_____Dropped?

3.5.6 If you do not have a laboratory school or in-house journal are you likely to add either over the next five years?

3.5.6.1 Yes_____ No_____

3.5.6.2 If Yes, please note briefly its likely emphasis, e.g., laboratory school for pre-school age children.

____

____

____

____

3.6 How would you assess the availability of secretarial or clerical assistance for faculty in your SCDE to support their non-teaching activities?

_____Adequate

_____Minimal

_____Little or none

3.7 Is it a generally held expectation that faculty in your SCDE will produce in the areas of R and D, evaluation, dissemination, special training, and field service activities?

3.7.1 Yes_____ No_____

3.7.2 If Yes, is the emphasis placed chiefly upon:

3.7.2.1 Research, development, evaluation? Yes_____ No_____

3.7.2.2 Dissemination, special training, field service activities?

Yes_____ No_____

3.7.2.3 Both of the above? Yes_____ No_____

3.7.2.4 Another more appropriate combination of the above (please note):_____________________________

3.7.3 What per cent of time is built into the regular workload of faculty to pursue the non-teaching activities noted above?

________per cent

3.7.4 What is the typical instructional load for faculty in your SCDE (e.g., 12 hours per semester; 30 hours per year, etc.)?

________hours per ______________instructional unit

3.7.5 In addition to institutionally based or sponsored activities, is the faculty member encouraged to use his/her time in arranging individual contracts and consultancies with, e.g., local and state education agencies, private R and D agencies, professional associations, etc.?

Yes_____ No_____

3.7.6 What per cent of a faculty member's time could be allocated by him/her to such individual activities within the bounds of common university policy and/or practice? ________per cent

3.7.7 In your opinion, would a significant amount of your faculty's work other than teaching, i.e., involvement in R and D, evaluation, dissemination, special training, and field service activities, be handled through individual consulting arrangements between a faculty member and another educational agency rather than through institutionally-based contractual arrangements?

_____Much

_____Some

_____Little or none

3.7.8 As you look ahead for the next five years in your SCDE, would you predict that:

	Increase	Decrease	Remain about the Same
3.7.8.1 The instructional load for faculty will :	______	______	______
3.7.8.2 The emphasis on faculty involvement in research, development, and evaluation activities will :	______	______	______
3.7.8.3 The emphasis on faculty involvement in dissemination, special training, and field service activities will :	______	______	______

3.8 Please enclose with this questionnaire any formal statement you institution has adopted regarding criteria for promotion and/or tenure.

Statement enclosed: Yes____ No____

3.8.1 Of the following commonly employed criterion areas which are used in your SCDE in evaluating faculty for promotion and tenure?

Criterion Areas	Employed as Criterion for:	
	Promotion	Tenure
Teaching		
Research		
Service		

3.8.2 If research and service are not considered formally as criteria for promotion or tenure in your SCDE, is it nonetheless likely that a faculty member who exhibits productivity in these areas will be advantaged in the consideration of his promotion or tenure case?

Yes_____ No_____

3.8.3 Would such productivity ever be considered a disadvantage?

Yes_____ No_____

3.8.4 In your opinion, will the emphasis in your SCDE in the application of criteria regarding research and service in making decisions about promotion and tenure change over the next five years? Please note below:

3.8.4.1 In relation to promotion and tenure decisions, is the emphasis on productivity in research, development, and evaluation likely to:

Promotion	Tenure
_____Increase	_____Increase
_____Decrease	_____Decrease
_____Remain about the same	_____Remain about the same

3.8.4.2 In relation to promotion and tenure decisions, is the emphasis on productivity in dissemination, special training and field service activities likely to:

Promotion	Tenure
_____Increase	_____Increase
_____Decrease	_____Decrease
_____Remain about the same	_____Remain about the same

3.9 In recruiting new faculty for your unit, how important would you consider the following abilities: (please check each item)

Characteristics of New Faculty	Degree of Importance		
	Essential	Helpful	Not Important
Likely success in instruction			
Evidence of prior publication			
Graduate level R and D training			
Likely success in working with personnel in school settings			

3.10 **Some institutions** make special budgetary provisions to support R and D, evaluation, dissemination, special training, and field service activities in the SCDE. Does your SCDE have any of the following provisions?

3.10.1 Designated (named) professorships? Yes_____ No_____

3.10.2 Systematic reallocation of some portion of university overhead funds accruing on outside grants or contracts? Yes_____ No_____

3.10.3 Seed grant funds for professors who are developing proposals or who are in preliminary stages of an R & D, evaluation, dissemination, special training, or field service project?

3.10.3.1 Yes_____ No_____

3.10.3.2 If Yes, how many professors in your SCDE have received such seed grants during the past two years (beginning July 1, 1973)? __________(number)

3.10.4 Do you have discretionary funds other than those noted above that can be used in support of faculty involvement in R & D, evaluation, dissemination, special training, or field service activities?

3.10.4.1 Yes_____ No_____

3.10.4.2 If Yes, please describe briefly.

____

____

____

3.10.5 Over the next five years would you anticipate that such special budgetary provisions in support of non-teaching activities in your SCDE will:

_____Increase markedly

_____Stay about the same

_____Decrease markedly

3.10.6 Some observers of the educational scene are predicting that as the enrollments in professional education programs decline, professorial staff will be freed up to engage in more non-teaching activities, e.g., research, development, field service, etc. Over the next five years in your SCDE do you consider this:

_____Likely

_____Possible

_____Unlikely

_____Impossible

3.11 Do you have sufficient budgetary flexibility so that you or department chairmen in your academic unit could release faculty members from a portion of their instructional load in order to pursue R & D, evaluation, dissemination, special training, or field service activities (discounting the release of faculty members under external grant or contract funds)?

3.11.1 Yes_____ No_____

3.11.2 If Yes, how many were released either full or part time during the academic year 1974-75? __________(number)

3.12 Some institutions maintain faculty growth programs which have as at least one of their goals improving the ability of faculty to participate actively in R & D, evaluation, dissemination, special training, and field service activities. Which of the following provisions are operating in your SCDE?

3.12.1 Sabbatical leaves for faculty.

3.12.1.1 Yes_____ No_____

3.12.1.2 If Yes, how many of the SCDE faculty were on sabbatical leave during the academic year 1974-75? _________(number)

3.12.2 Summer fellowships for faculty.

3.12.2.1 Yes_____ No_____

3.12.2.2 If Yes, how many of the SCDE faculty have such fellowships in the summer of 1975? __________(number)

3.12.3 Special leaves for faculty to engage in R & D, evaluation, dissemination, special training, or field service activities.

3.12.3.1 Yes_____ No_____

3.12.3.2 If Yes, please describe these briefly, indicating the number of persons involved with each type.

____

____

____

3.12.4 Retreats or symposia for faculty. Yes_____ No_____

3.12.5 Other arrangements of this type not noted above:

____

____

____

____

3.12.6 Would you predict that over the next five years there will be any marked changes in such arrangements for your SCDE?

3.12.6.1 Yes_____ No_____

3.12.6.2 If Yes, please describe below:

____

____

____

____

3.13 For many years, some SCDEs have maintained formal relationships with state and local educational agencies to foster joint involvement in R & D, evaluation, dissemination, special training, and field service activities. Early prototypes of these arrangements were the school study councils. More recently, teacher centers, dissemination and installation consortia such as the Individually Guided Education leagues of schools, in-service training and development centers for teachers, and arrangements with regional educational laboratories have been established. Does your SCDE maintain any regular relationships with local education agencies, state education agencies, regional, state, or national groups, professional associations, and the like, to foster R & D, evaluation, dissemination, special training, or field service activities? (Please do not include field arrangements in which the sole purpose is to provide placement for student teachers).

3.13.1 Yes_____ No_____ (If No, move to item 3.14)

3.13.2 If Yes, and you have a brochure(s) describing the relationship, please enclose it with the questionnaire:

Brochure enclosed: Yes_____ No_____

3.13.3 For such relationships where a brochure is not enclosed, please describe them briefly below:

(a) Name (e.g., "X" Study Council, "Y" Consortium or League of Schools, "Z" Teacher Center):

____

Primary Function (e.g., assisting in school evaluation, developing instructional materials, etc.):

____

____

Types of Member Agencies (e.g., local education agencies, state education agency, other SCDEs, etc.):

____

____

(b) Name: ______

Primary Function: ______

______

Member Agencies: ______

______

(c) Name: ______

Primary Function: ______

______

Member Agencies: ______

______

(d) Name: ______

Primary Function: ______

______

Member Agencies: ______

______

(Use the back of the page if more space is needed).

3.14 If you have a graduate program in education, please estimate as well as you can the number of graduate students who were working in the SCDE during the 1974-75 academic year as:

3.14.1 Teaching assistants: ______ (number)

3.14.2 Research assistants: ______ "

3.14.3 Other graduate assistants: ______ "

3.15. Are there any special arrangements, e.g., joint appointments or inter-departmental projects or centers, which bring together education faculty and faculty from other academic units to work on education R & D, evaluation, dissemination, special training, or field service projects?

3.15.1 Yes____ No_____

3.15.2 If Yes, please describe these briefly.

______

______

______

3.16 In recent site visits to a number of institutions, we have been struck with the variety of special arrangements which these institutions have invented to foster the involvement of their faculty in non-teaching scholarly and service activities (everything ranging from monetary awards for project writing, to paying publication costs, to mini-sabbaticals every 2-1/3 years). If your institution employs any such devices which have not been recorded in the prior questions on organizational arrangements, please note them briefly in the space provided below.

SECTION 4 - PROCESSES AND PRODUCTS

The previous sections of this questionnaire have covered a description of basic institutional data, the mission of your SCDE, and the arrangements employed by your institution to stimulate and facilitate faculty involvement in R & D, evaluation, dissemination, special training, and field services. This section is concerned with a description of the actual activities in which faculty members are engaged and with illustrations of the products of those activities.

4.1 To avoid the necessity of detailing the many faculty activities and products relating to R & D, evaluation, dissemination, special training, and field services, we ask that you send to us the most recent inventory that you may have prepared, for any reason, of faculty productivity. Almost all institutions ask faculty to prepare activity reports for one purpose or another, as for example: for NCATE, regional or state accreditation reports, for an annual SCDE report, or for university administrators for public relations, planning, or other purposes. If you have such information will you please share a copy with us,* so that we can obtain a picture of the variety of R & D, evaluation, dissemination, special training, and field service activities engaged in by the faculty of your SCDE? Information on even a segment of your faculty will be better than no information at all.

Faculty activity sheets enclosed? Yes_____ No_____

If Yes, it will not be necessary for you to respond to Items 4.2.3, 4.2.6, 4.3.3, 4.3.6, 4.3.8, 4.4.4, or 4.5.6. For your convenience we have boxed these numbers so that you can skip over them.

4.2 Some of your faculty members may be engaged in what might be termed "dissemination" activities. Would you help us obtain a feel for your SCDE's involvement in dissemination by responding to the following questions?

4.2.1 Do you publish a regular journal or newsletter directed to practitioners?

4.2.1.1 Yes_____ No_____

4.2.1.2 If Yes, please indicate the title(s):

____

____

____

---

*In very large SCDEs it may be difficult or impractical to provide this information unless you publish such material regularly or have just been through an accreditation visit. If the request is unreasonably cumbersome you may have an aggregated summary of productivity by faculty which you employ in your report. If nothing of this sort is available please place a question mark opposite 4.1 and we will discuss the problem with you.

4.2.2 Do members of your faculty publish in practitioner-oriented journals, e.g., Today's Education, Arithmetic Teacher, Phi Delta Kappan, Educational Leadership?

______ Frequently

______ Occasionally

______ Seldom

4.2.3 If Frequently or Occasionally please provide two or three illustrations of such articles published by members of your faculty during the past year (do not neglect to mention state and regional journals, if applicable).

(a) Author: ______________________________

Title: ______________________________

____

Journal: ______________________________

(b) Author: ______________________________

Title: ______________________________

____

Journal: ______________________________

(c) Author: ______________________________

Title: ______________________________

____

Journal: ______________________________

4.2.4 Are members of your faculty involved as editors or on editorial committees of practitioner-oriented journals?

______ Frequently

______ Occasionally

______ Not to my knowledge

4.2.5 Do members of your faculty present papers or speeches at practitioner-oriented conferences, e.g., AASA, state conferences of teachers, etc.?

______ Frequently

______ Occasionally

______ Seldom

4.2.6 If Frequently or Occasionally please provide two or three illustrations of such presentations made by members of your faculty during the past year:

(a) Presenter: ______

Title of Paper: ______

Conference: ______

(b) Presenter: ______

Title of Paper: ______

Conference: ______

(c) Presenter: ______

Title of Paper: ______

Conference: ______

4.2.7 Does your SCDE sponsor associations of practitioners or conferences for practitioners outside your regular graduate program?

______ Frequently

______ Occasionally

______ Seldom or never

4.2.8 As you look ahead to the next five years, do you believe that there will be any significant change in the extent of involvement of the faculty of your SCDE in dissemination-type activities?

______ The level of dissemination activity will probably increase.

______ The level of dissemination activity will probably decrease.

______ The level of dissemination activity will probably remain about the same.

4.2.9 Which SCDEs in your own region of the country (including your own institution) would you consider to be most influential in disseminating information to practitioners working in the schools? Please list up to five:

(a) ______

(b) ______

(c) ______

(d) ______

(e) ______

4.3 We would like to turn your attention now from dissemination activities to research activities.

4.3.1 What proportion of your faculty would you estimate are active members of the American Educational Research Association?

_____ Many

_____ Some

_____ Few

_____ None

4.3.2 Do members of your faculty publish in research-oriented journals, e.g., American Educational Research Journal, Educational and Psychological Measurement, Journal of Research in Science Teaching, etc.?

_____ Frequently

_____ Occasionally

_____ Seldom or never

4.3.3 If Frequently or Occasionally, please provide two or three illustrations of such articles published by members of your faculty during the past year:

(a) Author: ____________________

Title: ____________________

Journal: ____________________

(b) Author: ____________________

Title: ____________________

Journal: ____________________

(c) Author: ____________________

Title: ____________________

Journal: ____________________

4.3.4 Are members of your faculty involved as editors or on editorial committees of research-oriented journals?

_____ Frequently

_____ Occasionally

_____ Not to my knowledge

4.3.5 Do your faculty present papers at national meetings of research-oriented associations, e.g., American Educational Research Association, American Psychological Association, Association for Supervision and Curriculum Development, National Association for Research in Science Teaching, etc.?

_____ Frequently

_____ Occasionally

_____ Seldom

4.3.6 If Frequently or Occasionally please provide two or three illustrations of such presentations made by members of your faculty during the past year:

(a) Presenter: ________________________________

Title of Paper: ________________________________

____

Conference: ________________________________

(b) Presenter: ________________________________

Title of Paper: ________________________________

____

Conference: ________________________________

(c) Presenter: ________________________________

Title of Paper: ________________________________

____

Conference: ________________________________

4.3.7 Are any members of your faculty engaged currently in externally funded research projects?

Yes_____ No_____

4.3.8 If Yes, please note up to three such projects below:

(a) Principal Investigator: ________________________________

Title: ________________________________

____

Sponsoring Agency: ________________________________

(continued)

(b) Principal Investigator: ______________________________

Title: ______________________________

____

Sponsoring Agency: ______________________________

(c) Principal Investigator: ______________________________

Title: ______________________________

____

Sponsoring Agency: ______________________________

4.3.9 In larger SCDEs with a number of graduate departments or areas of concentration, research activity is usually not distributed evenly across the school. Please list the two or three most active and the two or three least active research areas in your SCDE in the spaces below, e.g., educational administration, counseling and guidance, curriculum, special education, etc. If your SCDE does not have such sub-units please move to Item 4.3.10.

Most Active	Least Active
(a)______________	(a_1)______________
(b)______________	(b_2)______________
(c)______________	(c_3)______________

4.3.10 As you look ahead to the next five years, do you believe that there will be any significant change in the extent of involvement of the faculty of your SCDE in research activities?

_____ The level of research activity will probably increase.

_____ The level of research activity will probably decrease.

_____ The level of research activity will probably remain about the same.

4.3.11 As you consider institutions of higher education in your own geographic area, including your own institution, that place the greatest emphasis on research productivity in education, which come first to mind? Please list up to five:

(a)______________________________

(b)______________________________

(c)______________________________

(d)______________________________

(e)______________________________

4.4 Many SCDEs are involved in what might be termed "development" activities, that is, inventing, designing, or evaluating new materials, methods, or organizational arrangements for schools and, to a lesser extent, for colleges. The most common such activity is, of course, writing textbooks for use in schools and colleges. In your SCDE:

4.4.1 What proportion of your faculty would you estimate have a textbook on the market?

_____ Many

_____ Some

_____ Few

_____ None

4.4.2 Are your faculty called on by publishers of educational materials as consultants, writers, or evaluators?

_____ Frequently

_____ Occasionally

_____ Seldom

4.4.3 Are any members of your faculty engaged currently in externally funded development projects?

Yes_____ No_____

4.4.4 If Yes, please note up to three such projects below:

(a) Project Director:______________________________

Title:______________________________

____

Sponsoring Agency:______________________________

(b) Project Director:______________________________

Title:______________________________

____

Sponsoring Agency:______________________________

(c) Project Director:______________________________

Title:______________________________

____

Sponsoring Agency:______________________________

4.4.5 Are there examples of fairly widely disseminated educational products, e.g., texts, films, workbooks, etc., which have been produced in recent years by your faculty?

Yes_____ No_____

4.4.6 If Yes, please provide up to three illustrations:

(a)____

____

(b)____

____

(c)____

____

4.4.7 How many of your faculty are engaged currently in development activities which may result in products for schools or colleges?

_____ Many

_____ Some

_____ Few

_____ Probably none

4.4.8 As you look ahead to the next five years, do you believe that there will be any significant change in the extent of involvement of the faculty of your SCDE in development activities?

_____ The level of development activity will probably increase.

_____ The level of development activity will probably decrease.

_____ The level of development activity will probably remain about the same.

4.4.9 Among SCDEs in your own geographic area that are involved heavily in product development, including your own institution, which come first to mind? Please list up to five:

(a)____

(b)____

(c)____

(d)____

(e)____

4.5 Service to public and private schools has been a common feature of SCDE operation for many years. In your SCDE:

4.5.1 How many of your faculty are involved in individual, ad hoc service arrangements with schools, e.g., conducting on-site workshops, operating surveys or studies, giving speeches, consulting, etc.?

_____ Many

_____ Some

_____ Few

_____ None

4.5.2 Does your SCDE maintain service arrangements with schools in which faculty members participate as a part of their regular load?

Yes_____ No_____

4.5.3 If Yes, please list up to three examples in the spaces below, e.g., conducted curriculum survey for X school district; ran on-site workshop for Y, etc.

(a)____

(b)____

(c)____

4.5.4 Do school systems in your area seek out formal assistance from your SCDE in attempting to adopt or generate new programs or to solve local problems?

_____ Frequently

_____ Occasionally

_____ Hardly at all

4.5.5 Are members of your faculty involved in rendering service through state or national professional associations either by holding offices or committee assignments?

_____ Frequently

_____ Occasionally

_____ Hardly at all

7

4.5.6 If Frequently or Occasionally, please illustrate recent offices or committee assignments in professional associations held by your faculty in the spaces below. List up to three.

(a) Name of Faculty Member: ______________________

Position: ______________________

Association: ______________________

(b) Name of Faculty Member: ______________________

Position: ______________________

Association: ______________________

(c) Name of Faculty Member: ______________________

Position: ______________________

Association: ______________________

4.5.7 The range of innovative activities in the area of service, installation, and adoption undertaken by SCDEs is far beyond the scope of a questionnaire to identify. If your SCDE, or a member of your faculty, are engaged in service activities not included above, please note them briefly in the space below.

____

____

____

____

____

4.5.8 As you look ahead to the next five years, do you believe that there will be any significant change in the extent of involvement of the faculty of your SCDE in service activities?

_____ The level of service activity will probably increase.

_____ The level of service activity will probably decrease.

_____ The level of service activity will probably remain about the same.

4.5.9 In your opinion, over the next five years, will specific requests for ad hoc service from the area schools probably:

_____ Increase

_____ Decrease

_____ Remain about the same

4.5.10 As noted earlier in regard to research activities, in large SCDEs service, adoption, and installation activities are usually not distributed evenly across departments or areas. In your unit please list the two or three most active and the two or three least active service areas below:

Most Active	Least Active
(a)____________________	(a_1)____________________
(b)____________________	(b_2)____________________
(c)____________________	(c_3)____________________

4.5.11 If a public school system were faced with a local problem, a need for service, or for assistance in the adoption of an educational innovation, what SCDEs in your own geographic region, including your own institution, might they be most likely to turn for help? Please list up to five.

(a)____

(b)____

(c)____

(d)____

(e)____

4.6 Some SCDEs (almost exclusively those with doctoral level programs) operate training programs for students who are especially interested in R & D, evaluation, dissemination, and field service. Does your unit:

4.6.1 Operate special training programs for students interested in R & D, evaluation, dissemination, and field services?

Yes_____ No_____ (If No, move to Item 4.6.3).

4.6.2 If Yes, please enclose with the questionnaire the description of these programs normally provided to interested students. Descriptions enclosed:

Yes_____ No_____

4.6.3 How many of your graduate students have experiences (other than the dissertation) in R & D, evaluation, dissemination, and field services during their period of graduate study?

_____ Many

_____ Some

_____ Few

_____ Probably none

4.6.4 Do you have small grant support available to students who wish to pursue R & D, evaluation, dissemination, or field service projects during their period of graduate study?

_____ Externally funded

_____ University funded

_____ None

4.6.5 Do your students ever publish (other than a thesis or dissertation) during their period of graduate study?

_____ Many

_____ Some

_____ Few

_____ Almost none

4.6.6 As you look ahead over the next five years, do you anticipate that your graduate program will place more or less emphasis on training for R & D, evaluation, dissemination, and field services?

_____ More

_____ Less

_____ About the same

4.6.7 If you were advising a student interested in educational R & D, evaluation, dissemination, and field services about an institution in your own geographic area (including your own institution) where he/she might pursue graduate study in education, which institutions would you suggest? List up to five.

(a)____

(b)____

(c)____

(d)____

(e)____

4.7 If you were advising a high school student interested in a quality teacher preparation program about an institution in your own geographic area (including your own institution) where he/she might pursue pre-service teacher preparation, which institutions would you suggest? List up to five.

(a)______________________________

(b)______________________________

(c)______________________________

(d)______________________________

(e)______________________________

SECTION 5 - SPECIAL CONSIDERATIONS

5.1 Some public institutions are constrained by statute, by other legislative mandate, or by rules of the state board of higher education in terms of the extent of their involvement in R & D, evaluation, dissemination, special training, and field service activities. Either public or private institutions may be constrained by rules of their boards of trustees. Such constraints may involve prohibitions from engaging in one or more of these activities, limitations on the scope of influence to a particular geographic region or a particular client group, directives to solicit funds only from particular kinds of funding agencies, etc.

5.1.1 Is your institution constrained by legal or policy action with respect to R & D, evaluation, dissemination, special training, or field service activities?

Yes_____ No_____ (If No, move to item 5.2)

5.1.2 If Yes, what is the source of the constraint (e.g., charter stipulation, state law, state board rule, board of trustees rule, etc.)?______________________________

____

____

5.1.3 What is the nature of the constraint?____________________

____

____

____

____

5.2 Some observers are now asserting that the depressed academic employment market has made it easier to find and employ personnel who are or may be productive in R & D, evaluation, dissemination, special training, and field service activities. Does your own experience bear out this contention?

_____ Yes

_____ Somewhat

_____ No

_____ Uncertain

5.3 SCDEs interested in becoming more involved and productive in R & D, evaluation, dissemination, special training, and field service activities often join together with other institutions in any of several types of consortia.

5.3.1 Is your SCDE now a member of any kind of consortium whether with colleges, school districts, or other agencies such as regional laboratories, private R & D firms, etc.?

Yes_____ No_____

5.3.2 If Yes, briefly describe the purpose of such consortia and indicate the other members by type, e.g., other universities, public schools, etc.

____

____

____

____

5.3.3 In your opinion, has the consortium achieved the purpose(s) for which it was established?

Yes_____ No_____

5.3.4 In your opinion, should consortia be considered as potentially effective organizational mechanisms by SCDEs which are not currently involved in such arrangements?

Yes_____ No_____

5.3.5 If Yes, what form(s) of consortium would you favor to assist SCDEs of your type to become more productive in R and D, evaluation, dissemination, special training, and field service activities (you may check more than one)?

_____ with other colleges of similar size.

_____ with a single institution which is already a major producer in this area.

_____ with a number of geographically contiguous resource agencies, e.g., private firms, unaffiliated research laboratories, data pools, computer services, libraries, etc.

_____ with several productive research and service institutions, each of which might have resources uniquely valuable to your own institution.

_____ with public schools.

_____ with public schools and state agencies.

_____ Other (specify):______________________________

5.3.6 If you are not currently a member of a consortium arrangement for R & D, field service, etc., are you engaged currently in planning with other institutions which may result in the formation of a consortium?

Yes_____ No_____

5.3.7 If Yes, describe briefly the projected purpose of the consortium and indicate other likely members by institutional type, e.g., other universities, public schools, etc.

____

____

____

____

5.4 A variety of benefits are sometimes asserted to accrue to institutions of higher education as a result of participation in R & D, evaluation, dissemination, special training, and field service activities. In your opinion, which of the following alleged benefits do in fact accrue in your own SCDE? Check all that apply.

_____None, since R & D, evaluation, dissemination, special training, or field service activities are not carried out on this campus.

_____Interesting learning situations are provided for students.

_____Internship and/or field experience opportunities are created for students.

_____Employment opportunities are created for students.

_____Instructional materials are developed or become more easily accessible.

_____Additional funds become available.

_____A more diversified and specialized faculty can be attracted to and retained at the institution.

_____Good public relations with local school districts are developed and maintained.

_____Faculty are more likely to stay in touch with developing knowledge.

_____Faculty improve their instructional skills.

_____Faculty bring the results of their activities to bear on their classroom instruction.

_____More instructional equipment becomes available.

_____More assistance--graduate students, clerical staff, and technical staff--become available.

_____Other (specify):____

____

____

5.5 Please respond to the items in this section only in the event that your SCDE is located on a regional campus of a state or private university system.

5.5.1 Is the mission statement which you provided in Section 2 identical for all SCDE components of the system (including the main campus)?

Yes_____ No_____

5.5.2 If Yes, are you provided roughly similar or proportional resources to the main campus in carrying out the mission?

Yes_____ No_____

5.5.3 If No, characterize the mission differences by circling the appropriate items underlined below:

5.5.3.1 Emphasis on research, development, and evaluation is higher, lower on our campus.

5.5.3.2 Emphasis on dissemination, special training and field service activities is higher, lower on our campus.

5.5.3.3 We have, have not a special orientation to the immediate service area of our SCDE.

5.5.4 Are professorial personnel on your campus evaluated for promotion and tenure on the basis of the same criteria employed by the main campus?

Yes_____ No_____

5.5.5 If No, or if the emphasis varies in application, note the emphasis placed on the standard three criterion areas of teaching, research, and service on the two campuses:

Criteria	Main Campus SCDE			Regional Campus SCDE		
	High	Medium	Low	High	Medium	Low
Teaching						
Research						
Service						

5.5.6 Are the following support services, which may be provided at the main campus, equally accessible to professorial staff in your SCDE?

Support Services	Equally Available	Available with Difficulty	Not Available
Information about grant and contract possibilities			
Assistance in preparing proposal requests			
Seed money grants from the university			
Released time arrangements for faculty on grants and contracts			

5.5.7 Is the instructional load in your SCDE the same as that in the SCDE on the main campus?

______ Significantly higher

______ Somewhat higher

______ Somewhat lower

______ The same

5.5.8 Do you consider that you have unique problems, advantages, or disadvantages in stimulating faculty involvement in research, development, evaluation, dissemination, special training and field service activities because of your status as a regional campus? Please describe below:

____

____

____

____

____

APPENDIX B

THE INSTITUTIONAL SAMPLE

Need for a sample. From the beginning of the study it was apparent that it would be impossible to collect the requisite data from each of the 1,380 schools, colleges and departments of education (SCDEs) believed to exist in June, 1975 (since reduced to 1,367 institutions as better information has become available). Classification of the population into a 8-category taxonomy (see Appendix C) made it possible to draw a sample representative of these eight categories and their subcategories. The major data of the study were to be collected via questionnaires directed at the sample institutions, and to a further sample of their faculty members.

Maximum size of sample. The institutional questionnaire used in the study was complex, and the investigators felt that it could not be adequately completed in most cases without considerable dialog between project personnel and respondents. Accordingly a combined telephone interview/questionnaire technique was used which required at least an initial telephone conversation with each dean/chairperson prior to mailing out the questionnaire and possible follow-up interviews at the initiative of either the respondent or the project staff. Logistical considerations (chiefly staff size) dictated that the maximum number of institutions that could be handled would be approximately 200.

Reductions in population to be sampled. While the eight major categories of the classification taxonomy reflected institutional types (e.g., main campuses of public, doctoral-level institutions), the subcategories within each major category reflected probabilities of involvement in knowledge production and utilization (KPU) activities. By definition, each X-level category (e.g., 1X, 8X) was considered by the staff, on the basis of preliminary information, to be non-involved in KPU; similarly, each C-level category was considered to be at best minimally involved. Consequently, all X-level categories were eliminated from consideration, as were all C-level categories except those for public or private doctoral level institutions (1C and 2C respectively). This decision reduced, at the time it was made, the number of institutions to be considered from 1,380 to 903 (including four institutions not classifiable); in fact, it reduced the number of institutions now known to be in the population from 1,367 to 892. The relevant information is shown in Table 1.

A number of effects resulted from the decision to reduce the size of the population to be sampled. First, generalizations that could be drawn from sample data would apply specifically only to the taxonomic subcategories (e.g., 1A1, 3A2, 8B, etc.) that were included, and not to gross categories (e.g., 1, 2, 3..). For example, data based upon the subcategories 8A1, 8A2, 8A3, and 8B could hardly be taken to be representative of Category 8 as a whole, since Category 8C (N = 198) and 8X (N = 81) were excluded. This constraint does not apply to any data which was not drawn from the institutional or faculty questionnaires, which are the only data sources dependent on the sampling process.

TABLE 1

POPULATION REDUCTIONS MADE BY DECISION TO ELIMINATE C- AND X-LEVEL INSTITUTIONS*

ITEM	AS OF**	
	6/75	8/76
Population Total	1,380	1,367
Minus Xs	183	141
Subtotal	1,197	1,226
Minus Cs	290	334
Subtotal	907	892
Minus Unclassifieds	4	0
Final Number Included	903	892

*1C and 2C were not excluded since the investigators were reluctant to drop any doctoral level institution from consideration on the assumption that doctoral study, by definition, implies concern for systematic inquiry.

**Differences between Ns for 6/75 and 8/76 result from reclassification of institutions as new and more extensive information became available.

Second, data drawn from this sample did not represent the population of SCDEs as a whole (i.e., the sum of all categories), since a large number of cases were systematically excluded. This can best be seen from the data presented in Table 2, which compares the eight gross categories in the sample and the population on three variables definitively known from secondary sources: AACTE membership, NCATE accreditation, and overall institutional enrollment. Since AACTE membership and NCATE accreditation were among the major variables taken into account in developing the classification taxonomy in the first place, it is not surprising that systematic population/sample variations exist. In general, the mean enrollment figure is higher for the sample than for the population, probably because KPU involvement is also related to institutional size.

Finally, it should be noted that the truncating decisions do not seriously impair the investigators' ability to interpret KPU productivity data for the population as a whole. The eliminated categories were believed to be low on KPU productivity at the time the decision was made, but this surmise was subject to test given the yield study information which became available (see Chapter V).

TABLE 1

POPULATION REDUCTIONS MADE BY DECISION TO ELIMINATE C- AND X-LEVEL INSTITUTIONS*

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TABLE 2

REPRESENTATIVENESS OF THE SAMPLE ON THREE SECONDARY VARIABLES

Category	% AACTE Members		% NCATE Accred.		Mean Tot Enroll.	
	Sample	Pop.	Sample	Pop.	Sample	Pop.
1A1						
1A20						
1A2S						
1B/1C						
2A1						
2A2						
2B/2C						
3A1						
3A2						
3A3						
3B						
4*						
5A1						
5A2						
5A3						
5B						
6A1						
6A2						
6A3						
6B						
7*						
8A1						
8A2						
8A3						
8B						
TOTAL						

*Only a general category was used for regional campuses.

The essential data are given in Table 3. The percentage contribution made by the Cs, the Xs, and the combination of Cs and Xs is shown for six yield study variables: publication credits, the number of journal credits accrued in the journal study; total credits, the number of ERIC/Resources in Education credits accrued; the dollars awarded in grants and contracts from, on the one hand, foundations (the Foundations yield study), and on the other, the U.S. government and other funding agencies (the Smithsonian Science Information Exchange yield study); total books, credits, the number of credits accrued in the books yield

TABLE 3

PER CENT OF CREDITS ACCRUED BY C- AND X-CATEGORIES ON SIX YIELD STUDIES*

Yield Study	Per Cent Derived From		
	Cs	Xs	Cs + Xs
Publication Credits (Journals)	3.55	0.48	4.03
Total Credits (RIE/ERIC)	0.72	0.39	1.11
Dollars (SSIE)	0.44	0.00	0.44
Dollars (Foundations)	7.64	0.00	7.64
Total Book Credits (Books)	0.00	0.00	0.00
Total Convention Credits (Conventions)	4.68	0.43	5.11

study; and total conventions credits, the number of credits accrued in the national professional conventions study. Less than half of one per cent of all dollars or credits originated with X-category institutions, and never as much as 10 per cent with C-category institutions. The largest percentage in the table is 7.64 (dollars accrued by C-category institutions) of which more than half (4.70 per cent) is accounted for by one massive grant to a single 4C institution. On the face of these data the decision to eliminate all Xs and all but two Cs was well warranted; their elimination will have almost no bearing on any conclusions drawn about educational KPU in SCDEs.

Approaches to the sampling problem. A concerted effort was made to find some valid statistical approach to the selection of an optimally efficient sample representative of the remaining institutions and the categories which they typified. Consultations with several Indiana University sampling statisticians led to the conclusion that there were simply too many variables to be estimated to permit efficient selection of a single sample to serve all purposes.

Several samples were then generated empirically for inspection. First, a sample of 206 institutions was produced by sampling categories in direct ratio to the number of institutions assigned to them. This possible sample was abandoned when it became apparent that too many institutions of low probability of KPU activity were included; such a sample while representative would not be optimally instructive. Second, a sample of 181 institutions was produced on the basis of estimated FTE faculty size. If the former sample tended to draw heavily from those categories containing large numbers of institutions, this approach over-represented those categories containing large numbers of people. This was found unsatisfactory too, for it left too many categories virtually untapped.

The penultimate sample (drawn 6/75). It became apparent as a result of the two sampling exercises briefly described above that some differential rules needed to be adopted that would avoid the two extremes which these approaches illustrated. After careful consideration the following rules were adopted:

1. Draw a 30 per cent sample for categories judged to be highest in probability of KPU productivity, i.e., 1A1, 1A2O, 1A2S, 2A1, and 2A2.

2. Draw a 20 per cent sample for categories judged to be intermediate in probability of KPU productivity, i.e., 1B/1C, 2B/2C, 3A1, 3A2, 3A3, 5A2, 5A3, 6A2, 6A3, 8A2, and 8A3.

3. Draw a 15 per cent sample from regional campuses as a special interest group, i.e., combining all subcategories of 4 and of 7 into two general categories (Master's level and baccalaureate level regional campuses respectively).

4. Draw a 10 per cent sample from the remaining categories, i.e., 3B, 5B, 6B, and 8B.

5. In no case, however, draw an N of fewer than 5 for any sampling category to avoid statistical problems in the event that individual categories were ever to be compared.

Application of these rules produced the sample used in the study, with an N = 176. The particular institutions included were selected by the following processes:

1. Arrange all institutions within a given category in rank order of total institutional enrollment from smallest to largest.

2. Divide the number of institutions in the category by the number to be included in the sample, e.g., for 1A1 divide 23/8 = 3, the nearest whole number of institutions to be included in each sampling cluster, since 1A1 contained 23 institutions of which 8 were to be sampled (see below).

3. Divide the total number of institutions into clusters by including in each cluster the number of institutions arrived at by Step 2.

4. From a table of random numbers, assign a number to each institution in each cluster. Arrange the institutions within clusters in order of that random number.

5. Select the first institution in each cluster arranged as in Step 4 as the first choice for sampling. In the event that replacement is needed, use the 2nd, 3rd, etc., institution in that order.

Changes in the penultimate sample. In the intervening year between the initial draw of the sample (6/75) and the end of data analysis activity (8/76), several classes of events occurred that altered the penultimate sample to some extent. These included: dropout of some institutions (all 176 original institutions had agreed to cooperate in telephone interviews conducted prior to mailing the institutional questionnaire) and replacement of these by alternates that had already been arranged (note above); reassignment of institutions from the category in which they were placed on 6/75 to other categories, on the basis of new, more complete, or better information; and simple dropout of institutions too late to be replaced (although one replaced institution finally did return its questionnaire and so was reintroduced into the sample).

The final sample. Complete data relevant to the sample are shown in Table 4. The following observations seem relevant:

1. The differences between the population figures on which the 6/75 sampling was based are substantially identical to those on which the final sample (8/76) was based. Nine institutions were removed in toto from the population list, chiefly because of reclassification of institutions in C or X categories.

2. The differences between the 6/75 and 8/76 samples were also small, adjustments having been made for the reasons noted in the footnotes to Table 4. One institutional response was lost, reducing the sample from 176 to 175 cases.

3. The returned sample of 135 cases approximated the penultimate and final samples reasonably well. The largest deviations (proportionately) existed in the 6A3, 6B, and 8B categories.

4. The rule that N shall never be fewer than 5 in any cell was applied to categories 2A1, 2B/2C, 4 COMB, 6A2, 6A3, 6B, and 7 COMB. The percentages of cases for these categories for both the 6/75 and 8/76 samples were thus higher than the values shown in the "Planned" column.

5. Final sample size was fewer than 5 cases for categories 1B/1C, 2A2, 2B/2C, 4 COMB, 6A2, 6A3, 6B, and 8A2. Care should be taken in comparing any questionnaire data between two or more of these cells or between any of these cells and other cells, because of the small N involved.

6. The number of second (replacement) choices was small, a total of nine of 135 cases or 6.67 per cent. Moreover, the overall return of 135 of 175 cases or 77.14 per cent seems high for a study of this complexity.

7. The relationship of returned to planned percentages seems high. The median returned percentage for those categories for which the planned percentage was 30, 20, 15, and 10 were, respectively, 26.67, 15.38, 18.59, and 9.93.

TABLE 4

CHARACTERISTICS OF INSTITUTIONAL SAMPLE

Category	Population N		Sample N			Sample as Per cent of Population				Number of 2nd Choices
	6/75	8/76	6/75	8/76	Returned	Planned	6/75	8/76	Returned	
1A1	25	23	8	8	7	30	32.00	34.78	30.43	0
1A2S	41	42	12	12	10	30	29.27	28.57	23.81	0
1A20	18	19	5	5	5	30	27.78	26.32	26.32	0
1B/1C	29	28	5	4[a]	4	20	17.24	14.29	14.29	0
2A1	11	11	5	5	5	30	45.45	45.45	45.45	0
2A2	16	15	5	6[b]	4	30	31.25	40.00	26.67	0
2B/2C	19	15	5	5	4	20	26.32	33.33	26.67	0
3A1	55	54	11	10[c]	6	20	20.00	18.52	11.11	1
3A2	79	78	16	15[d]	12	20	20.25	19.23	15.38	3
3A3	52	51	10	11[e]	7	20	19.23	21.57	13.73	0
3B	39	41	8	8	5	10	20.51	19.51	12.20	0
4 COMB	30	22	5	5	3	15	16.67	22.73	13.64	0
5A1	0	1	--	0	--	--	---	---	---	-
5A2	24	24	5	6[f]	6	20	20.83	25.00	25.00	0
5A3	53	50	11	10[g]	8	20	20.75	20.00	16.00	1
5B	78	80	8	8[h]	7	10	10.26	10.00	8.75	1
6A1	0	0	--	--	--	--	---	---	---	-
6A2	15	15	5	5	4	20	33.33	33.33	26.67	0
6A3	18	17	5	5	2	20	27.78	29.41	11.76	0
6B	16	18	5	5	2	10	31.25	27.78	11.11	0
7 COMB	19	17	5	5	4	15	26.32	29.41	23.53	1

(Continued)

TABLE 4, Concluded

Category	Population N		Sample N			Sample as Per cent of Population				Number of 2nd Choices
	6/75	8/76	6/75	8/76	Returned	Planned	6/75	8/76	Returned	
8A1	0	0	--	--	--	--	---	---	---	-
8A2	26	25	5	4[i]	3	20	19.23	16.00	12.00	0
8A3	78	79	16	17[j]	16	20	20.51	21.52	20.25	1
8B	162	167	16	16[k]	11	10	9.88	9.58	6.59	1
TOTAL	903	892	176	175	135	--	19.49	19.62	15.13	9

[a] One institution reassigned to 3A3.
[b] An additional institution accrued because an early dropout reinstated itself voluntarily, after replacement.
[c] One institution dropped out too late to be replaced.
[d] One institution dropped out too late to be replaced.
[e] One institution was reassigned from 1B.
[f] One institution was reassigned from 8A2.
[g] One institution was reassigned to 8A3.
[h] One institution was reassigned to 8B and another was reassigned from 8B.
[i] One institution was reassigned to 5A2.
[j] One institution was reassigned to 8B, two were reassigned from 5A3 to 8B.
[k] Two institutions were reassigned to 8A3 and 5B, two were reassigned from 8A3 to 5B.

Conclusions. In general, the sample seems to be adequate for the purpose the investigators had in mind, i.e., to be able to draw valid conclusions about KPU activities, by institutional type, in those institutions which show some reasonable level of KPU activity. The sample should not be regarded as a representative sample of the population of SCDEs as a whole or of gross subpopulations such as all 1s, all 5s, etc. It should be constantly borne in mind that:

1. The categories were differentially weighted because different sampling fractions, i.e., 30, 20, 15, or 10 per cent, were used with different categories.

2. Some categories, i.e., all Xs and all Cs except 1C and 2c, were not represented at all.

Generalizations made about specific, fine categories included in Table 4 are appropriate, but generalizations made about combinations of categories may not be.

None of the above constraints hold for data other than those collected via the institutional and faculty questionnaires, which were based on this institutional sample. Specifically it should be noted that yield study data were not at all affected by these sampling procedures since all institutions had an equal opportunity to appear in any yield study.

APPENDIX C

DEFINITION OF INSTITUTIONAL CATEGORIES IN THE RITE INSTITUTIONAL CLASSIFICATION SYSTEM

Forming Gross Institutional Categories. The first-level cut in the Research on Institutions of Teacher Education (RITE) system divided all institutions with SCDEs into gross categories on the basis of two variables: control (public/private) and degree level in professional education (baccalaureate/masters/doctorate).[1] This six category schema was then extended to eight categories by adding the variable main campus/regional campus. These two steps generated the following gross categories with schools, colleges, and departments of education (SCDEs) in 1975-76 spread across the categories as indicated in Table 1:[2]

TABLE 1

GROSS CATEGORIES USED IN CLASSIFYING SCDEs

Category Label	Category Description	No. with SCDEs
1	Public Doctoral Institutions	112
2	Private Doctoral Institutions	51
3	Public Masters Institutions	248
4	Public Masters: Regional Campus	36
5	Private Masters Institutions	278
6	Public Baccalaureate Institutions	66
7	Public Baccalaureate: Regional Campus	26
8	Private Baccalaureate Institutions	550
	TOTAL	1,367

Variables Used in Establishing Fine Categories. This institutional grouping reduced substantially the heterogeneity among SCDEs since general institutional characteristics combined with degree level in education affect, in most instances, the type of professional educational program operated by the institution. But other accessible information was available on all or a significant portion of these SCDEs which could be used to create more homogeneity within the gross categories, i.e.:

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[1] The source employed for this step was, Arthur Podolsky, ed., Education Directory: 1974-75: Higher Education (Washington, D.C.: National Center for Education Statistics, 1975).

[2] Hypothetically all permutations of two types of control, three degree levels, and two campus types yields 2 x 3 x 2 = 12 categories. Four of these hypothetical categories were eliminated, however, because: (a) no regional campus was authorized to grant a doctoral degree, and (b) the number of private institutions maintaining regional campuses was so small as not to warrant consideration.

1. Institutional enrollment (available for all institutions through the aforementioned 1974-75 Education Directory).

2. Regional accreditation of the college or university (available for all institutions through the 1974-75 Education Directory).

3. NCATE accreditation (available for all institutions from the 21st Annual List, National Council for Accreditation of Teacher Education).

4. AACTE membership (available for all institutions from the American Association of Colleges for Teacher Education: Directory 1975).

5. Single purpose orientation of an institution (available for all institutions through the 1974-75 Education Directory. This involved identifying institutions whose purpose was clearly dominated by a single concern, e.g., theological seminaries, conservatories, business schools).

6. Special status of the institution as a state university or land grant college (available for all institutions from the 1973-74 membership list of the Association of Schools and Colleges of Education in State Universities and Land Grant Colleges provided to the RITE staff by the Association).

7. Number of students completing programs in education (available for 62.6 per cent of the institutions (856) from the membership files of AACTE for 1973-74 provided to the RITE staff by the Association).[3]

8. Size of faculty in education (available for 43.7 per cent of the institutions from a brief questionnaire[4] sent to all SCDEs by the RITE Project in November, 1974).[5]

9. Involvement in KPU. Because of the special interest of this project in KPU activities in SCDEs two variables were added which might not be of interest in other inquiries involving SCDEs. The RITE questionnaire mentioned earlier asked institutions to check funding sources which provided grant or contract support for KPU to the SCDE during the past five years. Responses to the item turned out, in general, to be unreliable but some respondents specifically cited project activities and others disclaimed specifically any involvement in KPU. Where such notations

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[3] These data were available differentially across institutional types since AACTE membership varies among the eight categories. For example, usable data were available for 89 per cent of the Category 1 institutions, 88 per cent of the Category 3 institutions, but only 49 per cent of the Category 8 institutions. The availability of the data was correlated highly with institutional size and the reader will note that this was taken into account in using the data.

[4] See Appendix

[5] Again, the response rate varied from a high of 75 per cent for Category 1 institutions to a low of 35 per cent in Category 7. As the reader will note, this was taken into account in employing these data in the rules for classifying institutions.

were made they were taken into account in institutional classification. Additionally, the staff had available six previous studies in which efforts had been made to rate SCDEs in terms of research productivity or program quality plus the Carnegie classification of overall institutional activity in R and D. These studies were:

a. Sam D. Sieber, The Organization of Educational Research (New York City: Bureau of Applied Social Research, Columbia University, 1966). This study was based on a questionnaire to deans of education and coordinators of research in SCDEs. They were asked to nominate the graduate school in education which in their opinion was doing the best work.

b. Robert Bargar, Egon Guba, and Corahann Okorodudu, Development of a National Register of Educational Researchers (Columbus, Ohio: The Ohio State University Research Foundation, 1965). This study reported through self-nomination individuals who felt they should be classified as educational researchers, and the institution at which they received their doctoral degree.

c. Guy T. Buswell, et. al., Training for Educational Research (Berkeley, California: Center for the Study of Higher Education, University of California, 1966). This study identified from a class of doctoral graduates in education those who had produced two or more research publications in their career, and traced them to the institution from which they had received their doctorate.

d. Arthur S. Higgins, The Rating of Selected Fields of Doctoral Study in the Graduate Schools of Education: An Opinion Survey (New York City: Teachers College, Columbia University, Unpublished Doctoral Dissertation, 1968). This study was based on the rating of graduate programs in five areas of professional education by questionnaire response from faculty members teaching in the graduate school.

e. Lloyd E. Frohreich and Paul D. Sims, "What Are the Best Graduate Schools for Educational Administrators," School Management (May, 1973): pp. 43-35, 57-58. This study was based on ratings of departments of educational administration by faculty members in such departments. The technique employed was similar to that used by Allan Cortter in his ratings of graduate departments for the American Council on Education.

f. Peter M. Blau and Rebecca Zames Margulies, "The Reputations of American Professional Schools, Change (Winter, 1974-75): pp. 42-47. This study was based on ratings of SCDEs by deans of such units. The respondents were asked simply: "What in your opinion are the top five schools in your profession?"

g. Carnegie Commission on Higher Education, A Classification of Institutions of Higher Education - A Technical Report (Berkeley, California: The Foundation, 1973). Only one portion of this institutional classification system was employed, i.e., the identification of the 1.1 category of doctoral granting institutions. These were the fifty institutions of higher education which had led in the acquisition of federal financial support of academic science in at least two of the three years 1965-68 and had awarded at least fifty Ph.D.s in 1967-68.

10. Program information. Along with the original RITE questionnaire noted in variable (8) above, institutions were asked to return a packet of information about their program.[6] This packet was available on approximately half of the 43.7 per cent of the institutions that returned the questionnaire.

Employing the Variables to Establish Fine Categories. The variables available on all institutions were employed first to establish four more homogeneous groups of SCDEs within each of the eight broad categories already described. The actual rules will be described in detail later in this section, but the division of institutions into categories A, B, C, and X involved the following general steps:

1. A Institutions - fully accredited both as institutions of higher education (variable #2) and for teacher education programs (variable #3); membership in the national professional association for teacher education (variable #4).

2. B Institutions - fully accredited as institutions of higher education. However, these institutions were either not accredited by NCATE in teacher education or were accredited at a level below their highest degree level in education, e.g., a doctoral level institution with NCATE accreditation at the baccalaureate level, or were not members of the national professional association in teacher education.

3. C Institutions - fully accredited as institutions of higher education but not accredited by NCATE in teacher education at any level and not members of AACTE.

4. X Institutions - not accredited regionally or by NCATE in Teacher education and not members of AACTE.

The assumption underlying this second-level cut was that accreditation and identification with the national professional teacher education community were likely to distinguish between colleges and universities with institutional commitments to the education professions and those offering teacher education courses as a service to undergraduate students who desire to obtain teacher certification.

But there were still obvious anomalies among the increasingly homogeneous groups and data available (albeit not on all institutions in every instance) which could reduce the anomalies. A third cut was then made using the data on the variables noted in the preceding section, to wit:

1. A1 groups were formed on two bases. First, variable #9 - involvement in KPU - was considered. Employing the previous KPU and general studies noted in variable #9 a-g, a list of thirty-four research center institutions was formed. All of these SCDEs were operating at the doctoral level (23 public and 11 private institutions) and this re-grouping assumed precedence over the previous classificatio of these institutions. In fact, this re-grouping influenced the classification of only two institutions, one private and one public, that would not have been grouped with the As on the basis of accreditation and AACTE membership. Second, variable #7 was used in categories other than the doctoral institutions to identify the major producers of educational personnel in the country. SCDEs with more than a thousand students completing degree programs in education in a single year became A1 sub-categories for Categories 3-8.

2. Variable #7 was employed in two other sorts; at the doctoral level to establish A2 groups for institutions producing a significnt number of doctoral graduates each year; and at other levels to form A2 groups for institutions in which the enrollment in education exceeded ten per cent of the total student enrollment. This latter figure was determined by using variable #1 in conjunction with variable #7, and in a number of instances the institutions were queried by phone or letter to establish the number of students completing degree programs in education since the only secondary source available on this was the AACTE data set.

3. The A2 group among the doctoral level institutions was further sub-divided into A2S and A2O sub-groups on the basis of SCDE membership in the Association of Schools and Colleges of Education in State Universities and Land Grant Colleges. This subdivision might have some general utility for sampling since the argument could be made that this sub-set of institutions has a special commitment to state-based service activities and, probably, enjoys a somewhat favored position in state and federal financing for education. In fact, the RITE staff formed the sub-group chiefly for ease in reporting study results to ASCESULGC.

4. The remaining variables #5, #8, and #10 were used to refine institutional placement by exception. For the purposes of this study a highly specialized interest, e.g., a theological seminary, or a faculty of less than 3.0 F.T.E. in education was taken as prima facie evidence that the SCDE was not involved significantly in KPU activity. Conversely, a large F.T.E. faculty in education was used to move some institutions from a C to a B category as evidence that KPU activity might be more likely than other institutional characteristics would have predicted. Where it was available, packet information on an institution's program was used, for example, to move an institution to a higher category on the basis of comprehensive or innovative program elements or, in a few instances, to move an institution from a B to a C if the program data indicated a collection of certification courses rather than a program.

5. Finally, the reader will recall that variable #9 had two parts, only one of which has been noted so far. The original RITE questionnaire plus a packet of program materials solicited in the cover letter sometimes provided explicit evidence of an institution's involvement in KPU. Where such evidence existed, institutions were moved up in the category classification system even if other evidence would have placed them in lower categories.

Throughout the process of forming sub-groups, the staff always erred in favor of the institution. If complete data were not available, the institution was held in a higher category since the primary reason for establishing the classification system was to allow for differential sampling based on the likelihood that an institution was involved in KPU activity. Every effort was made not to "miss" a KPU-involved SCDE. The reader may feel after reading the previous section that the classification system is unwieldy and cumbersone, and that classification of particular institutions in the categories about to be described has certain mystical properties attached to it. In fact, special considerations such as program characteristics or KPU disclaimers were rarely invoked. A computer sort on institutions using only readily available and objective criteria (i.e., degree level, control, main/regional status, plus variables #1, 2, 3, 4, 6, 7) differs from the actual sort made by the investigators in only 3.3 per cent of the cases.

Description of the Categories in the Classification System. These manipulations increased the homogeneity of sub-groups within the system to the maximum possible given the demographic information available on the 1,367 SCDEs with state approved programs in teacher education. Following is a brief description of the categories that were formed and the number of institutions falling within each category.[7]

Category 1: Public Doctoral Level Institutions (N = 112)

A1---Research Center Institutions. These institutions were identified in previous studies of educational R and D activity as among the leading producers in the country; and/or through studies of perceptions held by deans of or faculty members in SCDEs as leading centers of graduate study in education. (N = 23)

A2---Other Major Centers of Doctoral Study in Education. These institutions, although not as prominent as the A1 group in previous studies of educational R and D activity, were, nevertheless, among the nation's leading centers of doctoral student production. (N = 61)[8]

B----Non-accredited Doctoral Programs in Education. These institutions were accredited for programs in education at some level but were not accredited by NCATE to offer the doctoral degree in education. (N = 19)

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[7] Obviously the classification of institutions can change from year-to-year. This categorization was made in the Spring, 1975 based on the most current demographic data available to support the classification of SCDEs.

[8] As noted earlier, this category was further subdivided into (1) state universities and land grant colleges (except those in 1A1 or non-doctoral categories) and (2) other institutions. (N = 42 for the former and 19 for the latter)

C----Non-accredited Programs in Education. These institutions offered doctoral training in education although they were not accredited by NCATE to offer education programs at any level and/or they had no recent doctoral graduates in education. (N = 9)

X---Special Purpose Doctoral Programs in Education. These institutions were not accredited in teacher education at any level but did offer doctorates with a special institutional program emphasis, e.g., theology, or offer non-residential doctorates in education. (N = 0)

Category 2: Private Doctoral Level Institutions (N = 51)

A1---Same as 1A1. (N = 11)

A2---Same as 1A2. (N = 15)

B----Same as 1B. (N = 6)

C----Same as 1C. (N = 9)

X----Same as 1X. (N = 10)

Category 3: Public Masters Level Institutions (N = 248)

A1---Major Centers of Educational Personnel Productivity. Institutions assigned to this category produced annually a total number of education graduates at all degree levels in excess of 1,000. They were highly significant programs for the staffing of elementary and secondary schools in the U.S. (N = 54)

A2---Programs Concentrating on Teacher Preparation. Although the total number of graduates produced in these institutions was less than those in Category A1, the program concentration on the preparation of teachers was similar. All of them enrolled over 10 per cent of students in teacher education programs and many had percentage enrollments of 30-60. (N = 78)

A3---Multi-purpose Institutions with Programs in Teacher Education. These institutions had strong commitments to a program in teacher education but their enrollment (less than 10 per cent in teacher education) exhibited a balance of emphases across the spectrum of program offerings especially at the undergraduate level. (N = 51)

B----Non-accredited Teacher Education Programs. In almost every instance these institutions were not accredited by NCATE for teacher education at any level although they offered teacher education programs at the Masters level and frequently offered programs in other specializations, e.g., counseling and guidance. In a few instances, institutions were placed in this category on the basis of other characteristics that provided evidence of low involvement in teacher education, e.g., small faculty, small student enrollment, disclaiming interest in KPU, etc. (N = 41)

C----Certification-based Offerings in Teacher Education. None of the institutions in this category were accredited for teacher education programs by NCATE at any level. Their program descriptions, faculty, students, etc. indicated that their post-baccalaureate course offerings consisted of coursework leading to certification rather than a full-fledged masters program. (N = 18)[9]

X----Non-accredited Colleges and Special Purpose Programs. These institutions were either not accredited by their regional accrediting association or defined a highly specialized mission, e.g., theological seminaries, or exhibited a self-evident disabling characteristic, e.g., fewer than three full time equivalent faculty. (N = 6)

Category 4: Public Masters Level Institutions: Regional Campuses (N = 36)

A1---Same as 3A1. (N = 1)

A2---Same as 3A2. (N = 1)

A3---Same as 3A3. (N = 9)

B----Same as 3B. (N = 11)

C----Same as 3C. (N = 10)

X----Same as 3X. (N = 4)

Category 5: Private Masters Level Institutions (N = 278)

A1---Same as 3A1. (N = 1)

A2---Same as 3A2. (N = 24)

A3---Same as 3A3. (N = 50)

B----Same as 3B. (N = 80)

C----Same as 3C. (N = 89)

X----Same as 3X. (N = 34)

Category 6: Public Bachelors Level Institutions (N = 66)

A1---Same as 3A1. (N = 0)

A2---Same as 3A2. (N = 15)

A3---Same as 3A3. (N = 17)

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[9] This was almost surely an under-estimate of the number of institutions that should have been placed in this category. Program data were obtained primarily from institutional packets returned with the initial RITE questionnaire. Unless the evidence offered in support of the contention that the master's offerings could be typified as they have been in this description, the general rule of errors in favor of the institution was followed.

B----Similar to 3B, although none of these institutions were accredited by NCATE. (N = 18)

C----Similar to 3C, in that none of the programs were NCATE accredited but they were also typified by very small student enrollments and F.T.E. faculty in education. (N = 10)

X----None of these institutioss were accredited by their regional associations as baccalaureate granting colleges. They were, of course, not accredited for teacher education by NCATE. (N = 6)

Category 7: Public Bachelors Level Institutions: Regional Campuses (N = 26)

A1---Same as 3A1. (N = 0)

A2---Same as 3A2. (N = 1)

A3---Same as 3A3. (N = 4)

B----Same as 6B. (N = 12)

C----Same as 6C. (N = 9)

X----Same as 6X. (N = 0)

Category 8: Private Bachelors Level Institutions (N = 550)

A1---Same as 3A1. (N = 0)

A2---Same as 3A2. (N = 25)

A3---Same as 3A3. (N = 79)

B----Same as 3B. (N = 167)

C----Same as 3C, with the obvious exception that the description of certification-based offerings applied to the undergraduate rather than the graduate program level. (N = 198)

X----Same as 3X. (N = 81)

Application of Rules for the Classification System. Institutional placement in each category is described below.

Category 1: Public Doctoral Level Institutions

A1--Institutions were placed in this category solely as a function of the frequency of their appearance on lists derived in the previous studies of institutional R and D productivity and graduate program quality described earlier in this section under variable #9 a-g. The lists generated in these earlier studies were as follows:

a) Sieber - any institution nominated two or more times in the study, 16 institutions in all.

b) Bargar, et. al.,- any institution that had produced four or more self-defined researchers. Twelve institutions were in the final group.

c) Buswell, et. al. - ten universities identified as having produced 60 per cent of the persons in the research institution group.

d) Higgins - any institution with a mean ranking of from "good" to "distinguished" in two of the five categories was listed - 28 in all. o

e) Frohreich and Sims - any institution with a ranking of distinguished or strong - 31 in all.

f) Blau and Margulies - any institution with nineteen or more citations by the 145 respondents - 13 in all.

g) Carnegie - all fifty of the colleges and universities in the Carnegie 1.1. category. The rules for inclusion of institutions based upon their appearance in these lists were as follows:

    1) Inclusion in any one of the listings (a-c) plus inclusion in one other list (d-f).

    2) Inclusion in any two of the listings (a-c) or (d-f) except that a repeat listing for educational administration on (d) and (f) was counted only once.

    3) Inclusion in (g) plus one other of the studies (a-f).[10]

A2--Institutional membership in AACTE and accreditation by NCATE at the doctoral level. Inclusion in one of the lists used for A1 classification was accepted as a substitute for AACTE membership.

B---Institutional membership in AACTE plus NCATE accreditation at a level other than doctoral.

C---Institutional membership in AACTE or NCATE accreditation at some level or evidence of involvement in KPU or consistent production of ten plus doctoral students per year.

---

[10] The repetition of institutions across lists was striking. With seven separate listings of up to as many as fifty institutions in the longest list, only thirty-four institutions met the rules for classification as a research center institution.

X---Neither AACTE membership nor NCATE accreditation at any level or a specialized institutional feature, i.e., a disclaimer of involvement in KPU activity, faculty of less than 3.0 F.T.E., institutional special purpose, e.g., theological seminary, or a program without resident students or faculty.

Category 2: Private Doctoral Level Institutions

Rules for classifying private doctoral level institutions were identical to those used for classifying public doctoral institutions as noted above.

Category 3: Public Masters Level Institutions

A1--Regional association accreditation, plus AACTE membership, plus NCATE accreditation at some level plus the production of over 1,000 graduates per year in education. In some instances, evidence of KPU productivity was substituted for either AACTE membership and/or NCATE accreditation.

A2--Same as A1 except that the number of graduates in education was less than 1,000 but the percentage of students enrolled in teacher education programs was always 10 per cent or more of total institutional enrollment.

A3--Same as A2 except that the percentage of students enrolled in teacher education was always less than ten.

B---Regional accreditation plus either AACTE membership or NCATE accreditatio at some level. In a few instances, the size of the full time education faculty (5 or more) and/or sizable number of teacher education graduates or a special program feature, i.e., an innovative approach to teacher education, was accepted in lieu of one of the basic category requirements.

C---Regional accreditation but neither AACTE membership nor NCATE accreditatio at any level. As noted in (B) above, an offsetting feature could be used to move an institution from the X to the C category. The only exception used to move an institution from B to C would be program data indicating conclusively that the masters level work is designed exclusively as a set of post-baccalaureate course offerings to meet certification requirements rather than as a full-fledged masters program.

X---Neither regional accreditation, nor NCATE accreditation, nor AACTE membership. A specialized institutional feature, i.e., a disclaimer of KPU activity or a faculty of less than 3.0 F.T.E., or a specialized institutional purpose was occasionally substituted for the general rule in placing an institution in this category.

Category 4: Public Masters Level Institutions: Regional Campus

Rules for classifying public masters level institutions on regional campuses were identical to those used for classifying public masters institutions on main campuses as noted in Category 3 above.

Category 5: Private Masters Level Institutions

Rules for classifying private masters level institutions were identical to those noted for Categories 3 and 4 above.

Category 6: Public Bachelors Level Institutions

Rules for classifying public bachelors level institutions were identical to those noted for Categories 3, 4, and 5 above.

Category 7: Public Bachelors Level Institutions: Regional Campus

Rules for classifying public bachelors level institutions on regional campuses were identical to Categories 3-6 above.

Category 8: Private Bachelors Level Institutions

Rules for classifying private bachelors level institutions were identical to Categories 3-7 above.

Results of the Categorization of Institutions in the Classification System. The distribution of the 1,367 institutions in the study across the institutional categories is given in Table 2.

TABLE 2

NUMBERS OF INSTITUTIONS IN EACH RITE CATEGORY

Category	N	Category	N
1A1	23	4A1	1
1A2O	19	4A2	1
1A2S	42	4A3	9
1B	19	4B	11
1C	9	4C	10
1X	0	4X	4
TOTAL 1	(112)	TOTAL 4	(36)
2A1	11	5A1	1
2A2	15	5A2	24
2B	6	5A3	50
2C	9	5B	80
2X	10	5C	89
TOTAL 2	(51)	5X	34
		TOTAL 5	(278)
3A1	54		
3A2	78	6A1	0
3A3	51	6A2	15
3B	41	6A3	17
3C	18	6B	18
3X	6	6C	10
TOTAL 3	(248)	6X	6
		TOTAL 6	(66)

CONTINUED

TABLE 2 (Continued)

Category	N	Category	N
7A1	0	8A1	0
7A2	1	8A2	25
7A3	4	8A3	79
7B	12	8B	167
7C	9	8C	198
7X	0	8X	81
TOTAL 7	(26)	TOTAL 8	(550)

APPENDIX D

THE FACULTY QUESTIONNAIRE AND COVER LETTER

INDIANA UNIVERSITY
School of Education
2805 East Tenth Street
BLOOMINGTON INDIANA 47401

CENTER FOR RESEARCH ON
INSTITUTIONS OF TEACHER EDUCATION

TEL NO 812 337- 9637

Dear Colleague:

This letter and the attached questionnaire come to you as part of a national study of R&D, service, and dissemination activities in schools, colleges, and departments of education* being conducted at Indiana University with support from the National Institute of Education. You and your institution have been selected so as to be representative of the education faculties of the 1,380 colleges and universities that offer at least the baccalaureate degree in education.

We earnestly solicit your cooperation in completing the enclosed questionnaire. This study is the first ever to attempt systematic collection of information about SCDEs, and your reply is especially important in filling in faculty perspectives.

The purposes of the study are twofold:

(1) to provide the teacher education community and the National Institute of Education with an accurate assessment of the current involvement of SCDEs in a variety of non-teaching activities, including but not limited to research, development, evaluation, dissemination, special (non-degree) training, and field service.

(2) to set the stage for better policy and program planning at the Federal level in supporting such activities across the full range of SCDEs in the United States.

We believe that it will be possible for you to complete the questionnaire in a relatively short time, probably 30-45 minutes. Please return it in the reply envelope provided. If you should misplace this envelope the return address is also given on the questionnaire itself.

Thank you very much for your assistance.

Sincerely,

David L. Clark

Egon G. Guba

Encl: Faculty Questionnaire

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*To avoid repetition we will designate such units here and in the questionnaire as SCDEs.

FICE STATE Cd

1-2 (1-8/9)

RESEARCH ON INSTITUTIONS OF TEACHER EDUCATION

102 H. L. SMITH CENTER, INDIANA UNIVERSITY
2805 East Tenth Street
Bloomington, Indiana 47401

FACULTY QUESTIONNAIRE

1. Your highest degree:
☐ 1—Baccalaureate level degree.
☐ 2—Master's level degree.
☐ 3—Specialist level degree (or 6th Year Certificate).
(9/9) ☐ 4—Doctoral level degree.
☐ 5—No earned degree.
☐ 6—Other.

2. Institution awarding *highest* degree: (10-14/)

3. Was your *highest* degree earned in a field outside education, e.g., sociology, economics, political science, psychology, mathematics, English, etc.?
☐ 1—Yes (Specify:)
(15/9) ☐ 2—No

4. Number of years experience in a college or university: (16-17/99)

5. Your academic rank:
☐ 0—Named professorship, e.g., Distinguished Service Professor, University Professor.
☐ 1—Professor.
☐ 2—Associate Professor.
☐ 3—Assistant Professor.
☐ 4—Instructor.
(18/9) ☐ 5—Lecturer.
☐ 6—*Adjunct* professor, associate professor, assistant professor, or instructor.
☐ 7—My institution does not rank faculty.
☐ 8—Other.

6. Are you tenured?
☐ 1—Yes.
(19/9) ☐ 2—No.
☐ 3—My institution has no tenure arrangements.

7. Do you teach primarily graduate or undergraduate students?
☐ 1—Undergraduate students.
(20/9) ☐ 2—Graduate students.
☐ 3—About equally divided between both.

8. How many *different* courses (not sections of the same course) do you teach during a typical academic period (semester, quarter, trimester etc.)?
☐ 1—One course.
(21/9) ☐ 2—Two courses.
☐ 3—Three courses.
☐ 4—Four or more courses.

10/75

9. What is your academic area or area of specialization? Indicate your *primary* area by insert- (22-23/99)
ing "1" in the box preceding the item, and up to two additional areas by inserting "2" and (24-25/99)
"3" in priority order in the appropriate boxes. (26-27/99)

☐ 1—Early Childhood Education
☐ 2—Elementary Education
☐ 3—Jr High/Middle School Education
☐ 4—Secondary Education
☐ 5—Jr/Community College Education
☐ 6—Higher Education
☐ 7—Adult/Continuing Education

☐ 8—Administration
☐ 9—Audio-Visual Education
☐ 10—Curriculum and Instruction
☐ 11—Educational Psychology
☐ 12—Guidance and Counseling
☐ 13—Educational Tests, Measurement, and Evaluation
☐ 14—International and Comparative Education
☐ 15—Research and Statistics
☐ 16—School Psychology
☐ 17—Social Foundations/History and Philosophy
☐ 18—Special Education
☐ 19—Student Personnel Administration
☐ 20—Urban Education
☐ 21—Agricultural Education
☐ 22—Art Education
☐ 23—Business Education
☐ 24—Distributive Education
☐ 25—English Education
☐ 26—Foreign Language Education
☐ 27—Home Economics Education
☐ 28—Industrial Arts Education
☐ 29—Languages Arts/Reading
☐ 30—Mathematics Education
☐ 31—Music Education
☐ 32—Physical Education/Health
☐ 33—Science Education
☐ 34—Social Studies Education
☐ 35—Speech/Hearing
☐ 36—Technical/Industrial Education
☐ 37—Vocational Education
☐ 38—Vocational Rehabilitation

☐ 39—Other (specify:)

10. Different schools, colleges, and departments of education (SCDEs) select different missions for themselves, as do individual faculty members. In Column *A* of the table below, please indicate the current importance of each of the indicated missions in *your* SCDE by circling *1—centrally* important, *2—moderately* important, and *3—not* important. In Column *B*, please indicate for each mission whether you believe its importance in your SCDE will change over the next five years by circling *1—increase* in importance, *2—remain the same*, and 3—*decrease* in importance.

Mission	SCDE Now A			SCDE Future B			
1—Teaching and instruction.	1	2	3	1	2	3	(28-29/99)
2—Research and scholarly productivity.	1	2	3	1	2	3	(30-31/99)
3—Development, dissemination, and demonstration.*	1	2	3	1	2	3	(32-33/99)
4—*Ad hoc* services to schools and other educational agencies.	1	2	3	1	2	3	(34-35/99)
5—Effecting change in schools or other educational agencies.†	1	2	3	1	2	3	(36-37/99)

* including the design and preparation of generalizable instructional materials such as textbooks, audio-visuals, workbooks, etc.; of teaching techniques, administrative patterns, and other novel concepts, practices, or artifacts; dissemination of information about or demonstration of any of the foregoing to a wide range of potential adopters; or evaluation of any of the foregoing.

† including needs assessments, assistance in selecting new programs or practices responsive to local needs, retraining of faculty and staff as required by newly installed innovations, demonstrating new approaches that are under consideration for adoption, servicing and nurturing newly installed programs.

11. In Column *A* of the table below, please indicate *your own current* involvement in each of the indicated missions (whatever its importance as viewed by your SCDE) by circling *1--heavily* involved, *2—moderately* involved, and *3—not* involved. In Column *B* please indicate how your involvement in each mission is likely to change over the next *five* years by circling *1—increase, 2—remain the same*, and *3—decrease*.

Mission	Myself		
	Now A	Future B	
1—Teaching and instruction.	1 2 3	1 2 3	(38-39/99)
2—Research and scholarly productivity.	1 2 3	1 2 3	(40-41/99)
3—Development, dissemination, and demonstration.	1 2 3	1 2 3	(42-43/99)
4—*Ad hoc* services to schools and other educational agencies.	1 2 3	1 2 3	(44-45/99)
5—Effecting change in schools or other educational agencies.	1 2 3	1 2 3	(46-47/99)

12. An important part of any academic career is the colleagueship that one enjoys with other professionals interested in similar areas. In the table below, please circle *one* number that best indicates the major source of colleagueship at your institution for each of the missions stated, according to the following code:

1—SCDE faculty within my own area(s) of specialization.
2—SCDE faculty outside my own area(s) of specialization.
3—Faculty from other college or university departments related to my area(s) of specialization.
4—Faculty from unrelated college or university departments.
5—My graduate school professors with whom I remain in touch.
6—Fellow students from graduate school with whom I remain in touch.
7—Persons who specialize in the same field(s) with whom I remain in touch through a kind of "invisible college."
8—Activities of national professional associations and societies.
9—Other.
10—Not applicable, since I am not active in relation to this mission.

Mission	Source	
1—Teaching and instruction.	1 2 3 4 5 6 7 8 9 10	(48-49/99)
2—Research and scholarly productivity.	1 2 3 4 5 6 7 8 9 10	(50-51/99)
3—Development, dissemination, and demonstration.	1 2 3 4 5 6 7 8 9 10	(52-53/99)
4—*Ad hoc* services to schools and other educational agencies.	1 2 3 4 5 6 7 8 9 10	(54-55/99)
5—Effecting change in schools or other educational agencies.	1 2 3 4 5 6 7 8 9 10	(56-57/99)

13. Do you regard your SCDE as a good environment for nurturing a professional staff engaged in activities related to the missions that have been referred to in previous items? Please check below *all* of the missions for which you believe that your SCDE offers a supportive environment. (58-62/9)

(58) ☐ 1—Teaching and instruction.
(59) ☐ 2—Research and scholarly productivity.
(60) ☐ 3—Development, dissemination, and demonstration.
(61) ☐ 4—*Ad hoc* services to schools and other educational agencies.
(62) ☐ 5—Effecting change in schools or other educational agencies.

14. Different colleges and universities place different weight on faculty participation in the several missions when considering them for *promotion and tenure*. In the table below indicate the weight placed by *your* institution on involvement in each of the missions by circling *1—essential, 2—helpful*, and *3—not considered*.

	Tenure	Promotion	
1—Teaching and instruction.	1 2 3	1 2 3	(63-64/99)
2—Research and scholarly productivity.	1 2 3	1 2 3	(65-66/99)
3—Development, dissemination, and demonstration.	1 2 3	1 2 3	(67-68/99)
4—*Ad hoc* services to schools and other educational agencies.	1 2 3	1 2 3	(69-70/99)
5—Effecting change in schools or other educational agencies.	1 2 3	1 2 3	(71-72/99)

15. Listed below is a series of activities in which you may be engaged or might like to engage in the future. In the first column, indicate your *current* activity (i.e., during the past 12 months) by circling *1—yes*, or *2—no*. In the second column indicate whetner you might like to engage in the activity in the future (whether or not you are engaged in it currently) by circling *1—yes*, or *2—no*. (1-8/9)

Activity	Current	Future	
1—Publish in *practitioner-oriented* journals, such as *Today's Education, Arithmetic Teacher*, or *Educational Leadership*.	1 2	1 2	(9-10/99)
2—Serve as editor or on an editorial committee for *practitioner-oriented* journals.	1 2	1 2	(11-12/99)
3—Present papers or speeches at *practitioner-oriented* conferences such as AASA or state teachers association meetings.	1 2	1 2	(13-14/99)
4—Publish in *research-oriented* journals, such as *American Educational Research Journal, History of Education Quarterly*, or *Sociology of Education*.	1 2	1 2	(15-16/99)
5—Serve as editor or on an editorial committee for *research-oriented* journals, as above.	1 2	1 2	(17-18/99)
6—Present papers or speeches at *research-oriented* conferences, such as the American Psychological Association, the American Educational Research Association, or the National Association for Research in Science Teaching.	1 2	1 2	(19-20/99)
7—Serve as consultant, writer, or evaluator for publishers of educational materials.	1 2	1 2	(21-22/99)
8—Design or develop educational materials used in colleges or schools, such as texts, films, or workbooks.	1 2	1 2	(23-24/99)
9—Render *ad hoc* services to schools or other educational agencies, e.g., on-site workshops, operating surveys or studies, or consulting.	1 2	1 2	(25-26/99)
10—Serve as an officer or committee member for a state or national level professional association.	1 2	1 2	(27-28/99)

16. If you needed advice or support in carrying out any of the missions referred to in previous items (except teaching and instruction), or in getting started in those mission areas in which you are currently not active but would like to be, to whom would you be most likely to turn? Check the *single most likely* source of assistance.

☐ 1—An associate dean, coordinator, or other administrative staff officer within the SCDE.
☐ 2—An administrative staff officer outside the SCDE but within the institution.
☐ 3—A faculty committee charged with providing this kind of assistance.
☐ 4—One or more colleagues within the SCDE, on an informal basis. (29/9)
☐ 5—One or more colleagues elsewhere in the institution, on an informal basis.
☐ 6—Peers or colleagues at other institutions.
☐ 7—Other sources.

17. *Excepting* teaching and instruction, different colleges and universities tend to take different postures in regard to faculty participation in the missions that have been referred to in previous items. What do you believe to be the posture that is taken by your college or university in regard to the remaining missions, i.e., research and scholarly productivity; development, dissemination, and demonstration; *ad hoc* services to schools and other educational agencies; and effecting change in schools or other educational agencies? Please check one only.

☐ 1—The institution disclaims any significant interest in or commitment to those missions. It places predominant emphasis on involvement in and successful completion of teaching responsibilities.

☐ 2—The institution does not emphasize these missions but encourages faculty to become involved in them on their own time and with their own resources. It does not provide, for example, load adjustments even when outside contract or grant funds are involved.

☐ 3—The institution generally approves faculty participation in such missions and is permissive about faculty devoting some portion of their time, e.g., one day per week, to them (including outside consulting). Faculty members are nevertheless viewed as private entrepreneurs in this area.

☐ 4—The institution generally approves faculty participation and takes an active role in stimulating it. Faculty members are viewed as institutional representatives for these purposes. Usually the institution will make an effort at least to keep faculty members informed about funding opportunities. (30/9)

☐ 5—The institution defines these missions as an integral part of the formal institutional mission (i.e., it *expects* the faculty to participate) and defines a portion of the regular load of each faculty member accordingly.

☐ 6—Same as 5, but the institution also provides a variety of organizational arrangements to stimulate and support such mission-related activities, e.g., a bureau or center for research, an associate dean for field services, earmarked seed money to stimulate projects, etc.

18. Listed below is a variety of factors, conditions, or circumstances over which SCDE's typically have no direct control but which are said to affect SCDE's. Focusing on the impact which these factors, conditions, or circumstances are having on *your* SCDE, please circle *1* if the impact is of *major* proportions, *2* if the impact is of *noticeable* but not of major proportions, and *3* if the impact is *negligible*.

Factor, Condition, or Circumstance	Impact	
1—Decreased demand for teachers.	1 2 3	(31/9)
2—Increased involvement of the teaching profession in the certification/accreditation process.	1 2 3	(32/9)
3—Demands for different teaching skills and behaviors in the public schools.	1 2 3	(33/9)
4—Increased demand for specific services (help) from public schools and other educational agencies.	1 2 3	(34/9)
5—Increase in teacher/professor organization and militancy:		
a. At the public school level.	1 2 3	(35/9)
b. At the college or university level.	1 2 3	(36/9)
6—Decrease in funds available for/to higher education from:		
a. The Federal government for student support.	1 2 3	(37/9)
b. The Federal government for R&D support.	1 2 3	(38/9)
c. The state government.	1 2 3	(39/9)
d. Private philanthropy.	1 2 3	(40/9)
e. Alumni giving.	1 2 3	(41/9)
7—Emergence of competitive agencies engaged in teacher training and retraining, e.g., teacher organizations, external degree programs, proprietary schools, local school district in-service training programs.	1 2 3	(42/9)
8—Emphasis on new modes of teacher education, e.g., competency based teacher education or field based teacher education.	1 2 3	(43/9)
9—Increased R&D in the area of teaching-learning and/or the education of teachers.	1 2 3	(44/9)
10—Emergence of competitive agencies for R&D, dissemination, service, etc., such as regional laboratories, special units in state departments of education or local school districts, private consulting firms, and the like.	1 2 3	(45/9)
11—Increased demand for nonteaching kinds of educational personnel, such as counselors, school health and social work personnel, media specialists, evaluators, and the like.	1 2 3	(46/9)
12—Increased use of paraprofessionals in the schools, such as teacher aides.	1 2 3	(47/9)
13—Increasing constraints placed on SCDE's by decisions made elsewhere in the university or college administrative hierarchy, e.g., enrollment limitations or budget cuts.	1 2 3	(48/9)

19. Some SCDE's have already moved to take certain steps in response to the impact factors noted in Item *18*. Listed below are some of the more common actions being reported. Has *your* SCDE taken any of these actions? Please circle *1—Yes* or *2—No*.

Action	Taken?	
1—Increasing emphasis on instruction while cutting back on research, development, service, etc.	1 2	(49/9)
2—Increasing emphasis on conventional programs, even cutting back on recently introduced program innovations if necessary.	1 2	(50/9)
3—Increasing efforts to offer programs to upgrade in-service teachers with concomitant de-emphasis on pre-service programs.	1 2	(51/9)
4—Cutbacks on faculty size.	1 2	(52/9)
5—Tightening of promotion/tenure requirements.	1 2	(53/9)
6—Limiting student enrollment in education.	1 2	(54/9)
7—Tightening student admission requirements in education.	1 2	(55/9)
8—Replacing faculty instructional load with new assigments such as R&D, field service, development, dissemination, etc.	1 2	(56/9)
9—Offering a larger portion of the instructional program off-campus.	1 2	(57/9)
10—Decentralization of many responsibilities to the SCDE level, as for example requiring the SCDE to "make its own way" so far as budget is concerned.	1 2	(58/9)

20. The impact factors listed in Item *18* undoubtedly affect different SCDE's in different ways. Taken as a whole, how do you believe these factors are affecting your SCDE? For each item, please enter the appropriate response number in the space provided.

a. Emphasis on each of the following activities in my SCDE will
1—increase, 2—not change, 3—decrease:
1) Teaching and instruction. a1) (59/9)
2) Research and scholarly productivity. a2) (60/9)
3) Development, dissemination, and demonstration. a3) (61/9)
4) *Ad hoc* services to schools and other educational agencies. a4) (62/9)
5) Effecting change in schools or other educational agencies. a5) (63/9)

b. My own emphasis on each of the following activities will
1—increase, 2—not change, 3—decrease:
1) Teaching and instruction. b1) (64/9)
2) Research and scholarly productivity. b2) (65/9)
3) Development, dissemination, and demonstration. b3) (66/9)
4) *Ad hoc* services to schools and other educational agencies. b4) (67/9)
5) Effecting change in schools or other educational agencies. b5) (68/9)

c. Program emphasis directed at each of the following target groups will
1—increase, 2—not change, 3—decrease:
1) Pre-service teachers or other educational personnel. c1) (69/9)
2) In-service teachers or other educational personnel. c2) (70/9)
3) New populations of teachers or other educational personnel. c3) (71/9)

d. Emphasis on the physical movement of programs from on campus to off campus will *1—increase, 2—not change, 3—decrease.* d1) (72/9)

e. The quality of instructional programs will
1—improve, 2—not change, 3—deteriorate. e1) (73/9)

(Continued on next page)

f. Faculty size will *1—increase, 2—not change, 3—decrease.*	f1)	(74/9)
g. Faculty quality will *1—improve, 2—not change, 3—deteriorate.*	g1)	(75/9)
h. Student enrollments will *1—increase, 2—not change, 3—decrease.*	h1)	(76/9)
i. Student quality will *1—improve, 2—not change, 3—deteriorate.*	i1)	(77/9)
j. My SCDE's control over teacher education requirements will *1—increase, 2—not change, 3—decrease.*	j1)	(78/9)

21. Your name (if you have no objections):

(please print)

Note: If you have any comments about your SCDE or this questionnaire that have not been covered in the items, please write them in the space below.

APPENDIX E

INSTITUTIONS WHICH PARTICIPATED IN THE STUDY

1. Alfred University, Alfred, New York.
2. American University, Washington, D. C.
3. Arizona State University, Tempe, Arizona.
4. Atlanta University, Atlanta, Georgia.
*5. Auburn University, Auburn, Alabama.
6. Augsburg College, Minneapolis, Minnesota.
7. Augustana College, Rock Island, Illinois.
8. Augustana College, Sioux Falls, South Dakota.
9. Ball State University, Muncie, Indiana.
10. Beaver College, Glenside, Pennsylvania.

11. Bemidji State College, Bemidji, Minnesota.
12. Bethany College, Bethany, West Virginia.
13. Bethel College, St. Paul, Minnesota.
*14. Blackburn College, Carlinville, Illinois.
15. Bluefield State College, Bluefield, West Virginia.
16. Boise State University, Boise, Idaho.
17. Boston University, Boston, Massachusetts.
18. Bowling Green State University, Bowling Green, Ohio.
19. Bridgewater State College, Bridgewater, Massachusetts.
*20. Bucknell University, Lewisburg, Pennsylvania.

*21. Campbell College, Buies Creek, North Carolina.
22. Carlow College, Pittsburgh, Pennsylvania.
23. Carnegie-Mellon University, Pittsburgh, Pennsylvania.
24. Carroll College, Waukesha, Wisconsin.
25. Catholic University of America, Washington, D. C.
26. Central Michigan University, Mt. Pleasant, Michigan.
27. Citadel Military College of South Carolina, Charleston, South Carolina.
28. City University of New York-City College, New York, New York.
29. City University of New York-Richmond College, Staten Island, New York.
30. Claremont Graduate School, Claremont, California.

31. Clarion State College, Clarion, Pennsylvania.
32. College of Saint Thomas, St. Paul, Minnesota.
33. College of William and Mary, Williamsburg, Virginia.
34. Concordia College at St. Paul, St. Paul, Minnesota.
**35. Concordia Teachers College, River Forest, Illinois.
36. Coppin State College, Baltimore, Maryland.
*37. Dakota State College, Madison, South Dakota.
38. DePaul University, Chicago, Illinois.
39. Eastern Michigan University, Ypsilanti, Michigan.
40. Eastern Nazarene College, Wollaston, Massachusetts.

41. Eastern Oregon State College, La Grande, Oregon.
*42. Fairmont State College, Fairmont, West Virginia.
43. Florida State University, Tallahassee, Florida.
44. Florida Technological University, Orlando, Florida.
45. Fordham University, New York, New York.
46. Friends University, Wichita, Kansas.
47. Governors State University, Park Forrest, Illinois.
48. Gustavus Adolphus College, St. Peter, Minnesota.
49. Hardin-Simmons University, Abilene, Texas.
*50. Harvard University, Cambridge, Massachusetts.

51. Howard Payne University, Brownwood, Texas.
52. Iowa State University of Science and Technology, Ames, Iowa.
53. Lenoir-Rhyne College, Hickory, North Carolina.
54. Lewis and Clark College, Portland, Oregon.
55. Louisiana State University-Shreveport, Shreveport, Louisiana.
**56. Loyola University, Chicago, Illinois.
57. Loyola University, New Orleans, Louisiana.
*58. Manchester College, North Manchester, Indiana.
*59. Marquette University, Milwaukee, Wisconsin.
60. Marycrest College, Davenport, Iowa.

61. Michigan State University, East Lansing, Michigan.
*62. Midland Lutheran College, Fremont, Nebraska.
63. Millersville State College, Millersville, Pennsylvania.
64. Minot State College, Minot, North Dakota.
65. Mississippi State University, State College, Mississippi.
66. Mount Mary College, Milwaukee, Wisconsin.
67. Mount Marty College, Yankton, South Dakota.
68. Mount Saint Mary's College, Los Angeles, California.
69. Mundelein College, Chicago, Illinois.
70. Nazareth College, Kalamazoo, Michigan.

71. Newberry College, Newberry, South Carolina.
72. Northern Illinois University, DeKalb, Illinois.
73. Oklahoma Panhandle State University, Goodwell, Oklahoma.
74. Oklahoma State University, Stillwater, Oklahoma.
75. Oral Roberts University, Tulsa, Oklahoma.
**76. Otterbein College, Westerville, Ohio.
*77. Pacific Oaks College, Pasadena, California.
*78. Pembroke State University, Pembroke, North Carolina.
79. Purdue University-Ft. Wayne Campus, Ft. Wayne, Indiana.
80. Radford College, Radford, Virginia.

81. Regis College, Denver, Colorado.
*82. Roosevelt University, Chicago, Illinois.
83. Rutgers, the State University of New Jersey, New Brunswick, New Jersey.
84. St. Cloud State College, St. Cloud, Minnesota.
85. St. Francis College, Ft. Wayne, Indiana.
86. St. John Fisher College, Rochester, New York.
87. St. Mary's College, Winona, Minnesota.
88. Salem State College, Salem, Massachusetts.
89. Salisbury State College, Salisbury, Maryland.
*90. San Diego State University, San Diego, California.

91. Sioux Falls College, Sioux Falls, South Dakota.
92. Skidmore College, Saratoga Springs, New York.
93. Southeast Missouri State University, Cape Girardeau, Missouri.
94. Southern Illinois University-Edwardsville, Edwardsville, Illinois.
95. Southern Orgeon College, Ashland, Oregon.
96. State University of New York-College at Fredonia, Fredonia, New York.
*97. Syracuse University, Syracuse, New York.
98. Texas Technological University, Lubbock, Texas.
99. Tift College, Forsyth, Georgia.
100. Tufts University, Medford, Massachusetts.

101. Union University, Jackson, Tennessee.
102. University of Arkansas, Fayetteville, Arkansas.
103. University of Arkansas-Monticello, Monticello, Arkansas.
104. University of Chicago, Chicago, Illinois.
105. University of Colorado, Boulder, Colorado.
106. University of Connecticut, Storrs, Connecticut.
107. University of Denver, Denver, Colorado.
108. University of Hartford, West Hartford, Connecticut.
*109. University of Illinois, Urbana, Illinois.
110. University of Louisville, Louisillle, Kentucky.

111. University of Maine at Farmington, Farmington, Maine.
112. University of Maine at Presque Isle, Presque Isle, Maine.
113. University of Michigan, Ann Arbor, Michigan.
114. University of Mississippi, University, Mississippi.
115. University of North Carolina-Greensboro, Greensboro, North Carolina.
*116. University of Northern Colorado, Greeley, Colorado.
117. University of Puget Sound, Tacoma, Washington.
118. University of Tennessee-Chattanooga, Chattanooga, Tennessee.
119. University of Tennessee-Knoxville, Knoxville, Tennessee.
*120. University of Vermont, Burlington, Vermont.

121. University of Washington, Seattle, Washington.
*122. University of Wisconsin-Milwaukee, Milwaukee, Wisconsin.
123. University of Wisconsin-River Falls, River Falls, Wisconsin.
124. University of Wisconsin-Stout, Menomonie, Wisconsin.
125. Valley City State College, Valley City, North Dakota.
126. Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
127. Viterbo College, LaCrosse, Wisconsin.
128. Washington University, St. Louis, Missouri.
129. Weber State College, Ogden, Utah.
*130. West Georgia College, Carrollton, Georgia.

131. West Virginia College of Graduate Studies, Institute, West Virginia.
132. West Virginia Institute of Technology, Montgomery, West Virginia.
133. Western Michigan University, Kalamazoo, Michigan.
134. William Penn College, Oskaloosa, Iowa.
135. Youngstown State University, Youngstown, Ohio.

Following is a listing of preliminary site visit institutions that were not part of the sample of the 175 SCDEs selected to receive the institutional questionnaire:

1. Central State University, Wilberforce, Ohio.
2. Denison University, Granville, Ohio.
3. Indiana University Northwest, Gary, Indiana.
4. Miami University, Oxford, Ohio.
5. Oakland City College, Oakland City, Indiana.
6. Rosary College, River Forest, Illinois.
7. Wheaton College, Wheaton, Illinois.

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*These SCDEs completed institutional questionnaires and participated in the final round of site visits.

**These SCDEs participated in the preliminary site visits and completed an institutional questionnaire.

APPENDIX F

SITE VISIT INTERVIEW MATERIALS

ACTIVITIES/PRODUCTS REPORT

Institution:____________________ Informant:____________________

1. Res	Q	C_1	C_2
2. Devel			
3. Eval			
4. Dis			
5. Serv			
6. D-A-I			
7. Other			

Quantitative Hs

C_1 Ms or Ls

C_2 Ms or Ls

Column heading code: Q = quantitative estimate: use of resources, time, money.
C_1 = contrastive estimate: other SCDEs of this type.
C_2 = contrastive estimate: other departments on campus.

Cell entry code: Quantitative: H = high emphasis.
S = some emphasis.
N = no emphasis.
Contrastive: M = more than one would expect.
A = average; about what one would expect.
L = less than one would expect.

SCDE Chief Administrator

A-Mission

1. What degree of concurrence do you think exists among the faculty of the SCDE in regard to the RDDA Mission of the SCDE? Between the SCDE and the President's Office? Between the SCDE and other departments across the campus?

2. Is there a variation in the RDDA mission as perceived by the different departments within the SCDE? If so, how do these separate missions fit into the general RDDA mission of the SCDE?

3. If you were a free agent in reshaping the emphases on the RDDA mission in this SCDE, would they remain essentially the same? If not, how would they be modified? Why? What prevents the SCDE or you from moving in these directions?

4. Is the sense of mission for the SCDE supported in concrete ways by the university administration--in terms of budget, facilities, personnel? If not, why not?

5. How does the SCDE stack up in terms of status on this campus? Is the RDDA mission significantly different across departments on campus? Do you receive a fair share of the university's resources? Are faculty in the School considered influentials on campus?

B-Organizational Arrangements

1. Are the organizational incentives at the college and university levels roughly appropriate to the expectations held out for faculty productivity in non-teaching areas, e.g., if faculty are expected to be involved in service-type activities, are these recognized in the salary, promotion, tenure decisions? If not, what are the problem (i.e., discrepancy) areas?

2. How would you assess any arrangements you have made to support faculty in their RDDA functions in terms of efficiency and effectiveness, e.g., associate deans, coordinators, bureaus, seed grants, faculty committees, etc.

3. What do you need that you do not have to support the SCDE's mission in the non-teaching areas, e.g., more released time for faculty, organizational units, more higher level administrative support, different personnel policies, etc.?

C-Activities-Products

1. Use activity product worksheet.

D-Impact Factors

1. Are or have the missions of the SCDE been in flux? Why?

2. Do you believe that the character of the SCDE mission at this

institution will change in the near future because of the impact of factors such as changes in enrollment, teacher market, unionization of faculty, etc.?

3. What factors do you see as most important?

4. What do you believe will be the result of these changes? What will the SCDE be like after five years?

5. In your opinion, is the projected change good or bad?

6. NIE and OE could have some effect on this future in SCDEs. What have they done in the past that has had positive or negative impact on this SCDE? What programs or policies would you push to fit the optimal future for this SCDE as you see it?

7. Are there moves afoot internally (to the NIE) which are likely to affect markedly the future of the SCDE? What are they? What is their likely effect?

SCDE Dean's Office Administrator

A-Mission

1. What degree of concurrence do you think exists among the faculty and administration of the SCDE, the college or university administration, and other departments on campus in regard to the RDDA mission of the SCDE?

2. How are the functions and activities of your office designed to reinforce that mission, if at all?

3. Is requisite support available from the university administration to carry out the mission?

4. What are the major obstacles confronting the SCDE in carrying out its RDDA mission?

5. How does the SCDE stack up in terms of status on this campus? Is the RDDA mission significantly different across departments on campus? Do you receive a fair share of the university's resources? Are faculty in the school considered influentials on campus?

B-Organizational Arrangements

1. What do you need that you do not have currently to support the SCDE's mission in the non-teaching areas, e.g., more released time for faculty; organizational units; more dean's level support; different personnel policies, etc.?

2. Among the arrangements currently operative to support this mission which are working (best, worst) in achieving these ends? Why?

3. Do you have any reaction to the university level organization to support RDDA in the SCDE, e.g., processing proposals, handling overhead; making seed grants; providing space, equipment, etc?

C-Process-Product

1. If the interviewee is responsible for some aspect of the RDDA mission, he may be able to furnish us with lists, summaries, or exemplars of activity and/or productivity in RDDA which we do not already have.

2. In any event, use Activity-Product report form.

D-Impact Factors

1. Are or have the missions of the SCDE been in flux? Why?

2. Do you believe that the character of the SCDE mission at this institution will change in the near future because of the impact of such factors as changes in enrollment, teacher market, unionization of faculty, etc.?

3. What factors do you see as most important?

4. What do you believe will be the result of these changes? What will this SCDE be like in five years?

5. In your opinion, is the projected change good or bad?

6. Especially if the interviewee is in charge of an aspect of RDDA ask about the effect NIE and OE should try to have on this future. What have they done in the past that has had a positive or negative impact on this SCDE? What programs or policies would you push to fit the optimal future for this SCDE as you see it?

7. Are there any moves being made or contemplated internally (to the NIE) which are likely to effect markedly the future of the SCDE? What are they? What is their likely effect?

E-General

1. What are the primary dean's level functions and activities conducted out of this office (special effort should be made to obtain details when the office is assigned direct responsibility for one or more RDDA function, e.g., associate dean for research, coordinator of field studies, etc.)?

SCDE Department Chairmen

A-Mission

1. What do you perceive to be the mission of this department in regard to RDDA?

2. How does this mission contrast with the RDDA missions of other SCDE departments?

3. How does your department's mission fit into the missions of the SCDE?

4. In your opinion are the missions of the department and of the SCDE appropriate?

B-Organizational Arrangements

1. From the point of view of your faculty, how consonant are various organizational arrangements that have been made by the SCDE for support or stimulation of RDDA with the expectations for such activity on the part of the faculty? Consider specifically:

   a. operational units
   b. staff officers or committees
   c. load adjustments (including leaves)
   d. personnel policies
   e. budgetary provisions

2. Are there any special organizational arrangements to stimulate or support RDDA that exist specifically in this department?

C-Activities-Products

1. Use standard chart.

2. Are there any RDDA activities or products in your department that you would particularly like to have us know about?

D-Impact Factors

1. What changes do you anticipate over the next five-10 years that will alter the present posture of your department in regard to RDDA?

   a. General
   b. Specific to mission, organizational arrangements, activities and products.

2. Why will the changes occur? What factors are at work to produce or cause them?

3. Which of the factors are internal to the department, which to the I.H.E., and which are external?

4. Do you believe that your department will be in an improved or diminished posture in regard to RDDA as a result of these changes?

5. Federal policies have traditionally influenced RDDA significantly. Can you think of any policies of programs that have been either especially helpful or harmful to RDDA in your department? If you could propose new legislation, what would it include?

Program or Unit Directors

Program or Unit Information

1. What is the official name of this unit?

2. What is its primary process orientation, i.e., research, development, evaluation, dissemination, service, diffusion-adoption-installation?

3. What is the primary substantive orientation, e.g., special education, urban education, educational administration, etc.?

4. What are the sources of funds for its support (get all that apply): the IHE itself, one or more LEAs, the SEA, NIE, USOE, NIH, private foundations, and any others.

5. Is the unit likely to undergo any major change, including elimination, over the next five-10 years? Why?

6. What do you believe to be the major contribution of this program/unit to the SCDE? Of what things are you particularly proud?

SCDE Faculty

A-Mission

1. What are the mission emphases of this SCDE (i.e., RDDA) which, in your opinion, are shared broadly across the faculty? What do faculty accept without challenge as the purposes of the SCDE?

2. What are less generally agreed upon areas, if any, among the faculty in regard to the unit's mission? Who is contending what and why?

3. What are you expected to involve yourself in among non-teaching responsibilities?

4. How do the missions of the institution and its expectation fit with what you do best and/or what you would most like to spend your time on?

5. If you could "call the shots" personally in terms of institutional mission what do you think would provide the optimal emphases in this SCDE? Why?

B-Organizational Arrangements

1. What does the institution do (effectively, ineffectively) to support faculty in carrying out their "expected" non-teaching missions:

   a. Support or special purpose units, e.g., bureaus
   b. Stimulatory, facilitating positions, e.g., assistant dean
   c. Load arrangements, e.g., released time
   d. Reinforcement techniques, e.g., promotion/tenure
   e. Financial provisions, e.g., seed grants

2. Talk about the match or lack of match which you think exists between these organizational arrangements and what the institution expects of faculty.

3. From a solely personal point of view, how do these organizational arrangements impact upon you? What have you found helps you to do what you want to do? What appears to be designed to help but turns out to be neutral or negative?

4. Is this SCDE a responsive environment for you to pursue the non-teaching activities in which you are most interested? Do you suspect most faculty find it to be so?

C-Activities-Products

1. Are there any projects or programs in which you are currently or have been recently engaged that would illustrate your commitment to RDDA?

2. Standard Activity-Product Form.

D-Impact Factors

1. Are or have the missions of the SCDE been in flux? Why?

2. Do you believe that the character of the SCDE mission at this institution will change in the near future because of the impact of factors such as changes in enrollment, teacher market, unionization of faculty, etc.?

3. What factors do you see as most important?

4. What do you believe will be the final result of these changes? What will the SCDE be like after five years?

5. Will you be affected personally by these changes?

6. In your opinion, is the projected change good or bad?

7. The Federal government through programs in N.I.E. and O.E. could surely have an impact on who does what in SCDEs. What past programs do you feel have had the most positive, most negative effects? What would you opt for as new Federal support programs to reinforce what SCDEs in your opinion should be doing? What would help you most personally?

D-Impact Factors

1. Do you believe that the character of the SCDE mission at this institution will change in the near future because of the impact of factors such as changes in enrollment, teacher market, unionization of faculty, etc.?

2. Which of these factors do you see as most important?

3. Are there future plans in progress at the university level which will influence the character of the SCDE?

4. What do you think will be the final result of these changes? What will the SCDE look like in five years?

5. In your opinion is the projected change good or bad?

Non-SCDE Administrators: Academic Deans

A-Mission

1. Are the professional education missions in your school similar to, quite different from those in the SCDE? How would you compare the two?

2. Do the missions of the SCDE complement, support, interfere with what you have in mind for professional education in your unit?

3. To what extent are RDDA activities emphasized in the mission of the professional education unit in your school? How has this, might this change?

B-Organizational Arrangements

1. Are your professional education faculty expected to be active in RDDA?

2. What arrangements are set up in your unit to facilitate faculty involvement in educational RDDA? Since we have no questionnaire data on this, the query should cover all the major elements of Sec. 3 of the questionnaire, i.e., bureaus, dean's staff, personnel policies, etc.

3. How would you compare these arrangements with those in operation in the SCDE?

C-Products-Activities

1. We have no prior information on education RDDA activity in these units. Should begin by soliciting faculty activity sheets or similar records that would describe any RDDA output.

2. Then move to Standard Activity Sheet Form.

D-Impact Factors

1. Do you believe that the character of the SCDE mission at this institution will change in the near future because of this impact of factors such as changes in enrollment, teacher market, unionization of faculty, etc.

2. What factors do you see as most important?

3. What do you believe will be the final result of these changes? What will the SCDE be like after five years?

4. In your opinion, is the projected change good or bad?

Non-SCDE Faculty, Department Chairman

A-Mission

1. Is your work in any way related to the programs or activities of the SCDE? How?

2. What do you perceive to be the major RDDA emphases of the SCDE? Do they support or detract from your normal tasks?

3. Thinking of the university as a whole, are faculty generally supported, encouraged, or stimulated in regard to RDDA? Is the university's posture sound in this regard?

B-Organizational Arrangements

1. Would you say that promotion, tenure, salary, and other personnel decisions are made uniformly throughout the university? Specifically, do you see any differences between your department and the SCDE?

2. What does the university provide in the way of support for faculty engaged in RDDA? How about budget, facilities, travel, clerical, or student assistants, etc.? Are the arrangements satisfactory?

C-Activities-Products

1. Use standard form.

2. Do you or others from your department work with anyone from the SCDE or any RDDA activity? Are such relations formal or informal?

3. How do you view the value or utility of such arrangements?

D-Impact Factors

1. Do you believe that the character of the SCDE program at this institution will change in the near future because of the impact of factors such as changes in enrollment, changes in the teacher market, unionization of faculty, etc.?

2. What factors do you see as most important?

3. What do you believe will be the final result of these changes? What will the SCDE be like after five years?

4. Is the change good or bad, in your opinion?

Public School Administrator and/or Teachers

A-Mission

1. Have you taken any coursework at Institution "X"? Has it been helpful to you? Amplify.

2. Do you turn regularly to any SCDEs in this area for help in your work as an administrator or teacher? Explain.

3. Are you involved in any of the programs at Institution "X"? Amplify.

4. What do you think Institution "X" (and other SCDEs) ought to be doing to help public school teachers and administrators?

5. If you were a member of a Board of Visitors at "X" and especially interested in improving elementary and secondary education, what would you suggest to the President and/or SCDE chief Administrator?

B-Activities-Products

1. Do you use any materials in your classroom which have been produced at Institution "X"?

2. Have you been involved with SCDE faculty in producing any classroom materials?

3. Do you use materials in your classroom produced by any SCDE?

4. Is there any SCDE in your geographic area which you think is directly helpful to practitioners?

C-Impact Variables

1. What would you predict will be the likely effect of changes in education generally on the future of SCDE-LEA-SEA relationships, e.g., oversupply of teachers; establishment of militant faculty organizations in LEAs and on-campus; shortage of funds in support of education; etc.?

2. Have changes in Federal funding had any effect on programs in your district? Will they have? Do you have any reactions as to how the Federal government could deploy usefully limited funds to help you do your job better?

3. Among current Federal programs, are any of special utility to you, e.g., ERIC, Experimental Schools, Title III, Title I, Vocational grants, Career Education, etc.?

4. Have there been any marked changes in the relationship of your LEA to Institution "X" over the past few years? Describe. Has the change been positive, negative?

5. Is the relationship between public school personnel and SCDE faculty becoming (more, less) close than it once was? Will this trend continue, change? Why?

D-SCDE Organization

1. Are any professors from Institution "X" working regularly in the schools? Explain.

2. Does the I.H.E. help them in setting up and maintaining these relationships or do they have to do it pretty much on their own?

3. Are there (have there been) any formal relationships between public schools and SCDEs in this area, e.g., study councils, leagues of schools, etc.

4. If there is no formal relationship, how do you access this institution when you need help?

Students

A-Mission

1. On what did you base your decision to enroll in this SCDE? Was your decision determined in any way by the reputation or posture of this institution in regard to RDDA?

2. Do you believe that this SCDE makes an effort to stimulate interest in RDDA activities in its graduate students? How?

3. Are you yourselves looking forward to a career that emphasizes some RDDA aspect?

B-Organizational Arrangements

NO QUESTIONS

C-Activities-Products

1. Use standard chart; eliminate C_2.

2. In relation to the activities you have mentioned, are there opportunities for students to work as assistants to individual professors or in some organizational unit?

3. Are such appointments prized by students?

4. What utility do they have in furthering the SCDE's RDDA program? The training programs of students?

5. Are there formal RDDA training programs?

6. How effective are they?

D-Impact Factors

1. In your opinion, will the posture of this SCDE in regard to RDDA activities change much over the next five-10 years? Why?

2. Are the forces now at work for change going to result in improvement or decrement in the quality of the RDDA program of this SCDE? Why?

3. Is there any altered or new Federal support policy that you can imagine that would improve the situation of the graduate student interested in RDDA?